E C O

C E O

Environmental Commissioner of Ontario

2004·2005 Annual Report

Planning Our Landscape

Every thread of creation is held in position
By still other strands of things living
In an earthly tapestry hung from the skyline ...

Tapestry, Don McLean, 1971

Environmental
Commissioner
of Ontario

Commissaire à
l'environnement
de l'Ontario

Gord Miller, B.Sc., M.Sc.
Commissioner

Gord Miller, B.Sc., M.Sc.
Commissaire

October 2005

Speaker of the Legislative Assembly
Room 180, Legislative Building
Legislative Assembly
Province of Ontario
Queen's Park

Dear Speaker:

In accordance with Section 58 of the *Environmental Bill of Rights, 1993*, I am pleased to present the 2004/2005 annual report of the Environmental Commissioner of Ontario for your submission to the Legislative Assembly of Ontario.

Sincerely,

Gord Miller
Environmental Commissioner of Ontario

1075 Bay Street, Suite 605
Toronto, Ontario M5S 2B1
Tel: 416-325-3377
Fax: 416-325-3370
1-800-701-6454

E C O
C E O

1075, rue Bay, bureau 605
Toronto (Ontario) M5S 2B1
Tél. : 416-325-3377
Téléc. : 416-325-3370
1-800-701-6454

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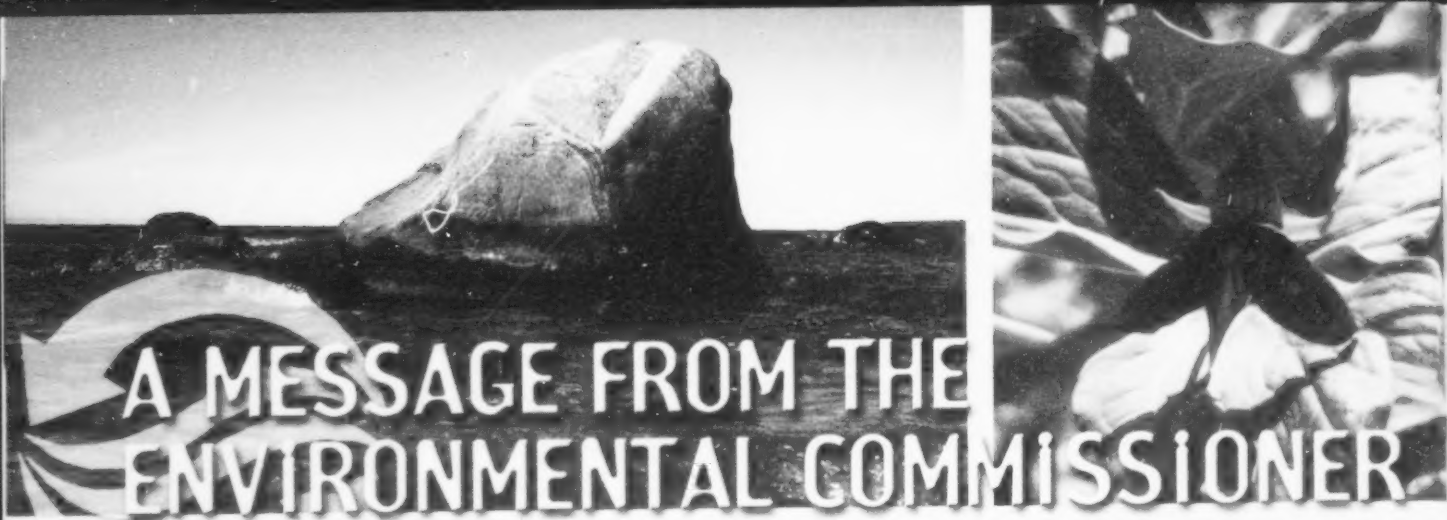
Glossary: See the ECO Web site at www.eco.on.ca



A MESSAGE FROM THE ENVIRONMENTAL COMMISSIONER

Planning Our Landscape

Much of this year's report deals with the major changes to the land use planning system in Ontario that have taken place in the past fiscal year. Our use of the land in Ontario is a major issue that spawns a myriad of environmental concerns related to sprawl, highway construction, aggregate extraction, endangered species protection, forest fragmentation and water quality.

The essential point is that despite its apparent vast size, there is a fixed amount of land in Ontario, and each year there are more of us placing more demands on that land – resulting in changes and stresses to the landscape. How we manage those changes will determine what the landscape will look like in the future, how it will function ecologically, and how it contributes to our economy and our well-being.

The concept of planning and the creation of land use plans are inherently oriented toward the future. Plans are a statement of intent. They cultivate an image in people's minds of what the future might look like. In doing so, they create expectations. In the past months, there have been many broad statements of planning intent and thus many new expectations created, especially with respect to the land bordering Lake Ontario, now falling under the new Greenbelt Plan. The Greenbelt Plan rolls up the previously created Niagara Escarpment Plan and Oak Ridges Moraine Conservation Plan with a large new area called the Protected Countryside to create a system of planning processes that are intended to control sprawl and protect our natural heritage. Such improvements to the planning system are certainly welcome and to a great extent overdue. But will these new planning processes create a landscape, say 25 years from now, that meets our expectations?

One of the troubling aspects of the improved planning system is that it is still based on the assumption of continuous, rapid population growth. Government forecasts project that over the next 25 years Ontario's population will increase from just over

12 million to 16.4 million or perhaps as high as 18 million. Three-quarters of these people are expected to settle in the urban area around Toronto and in the Greenbelt lands. Even with higher development densities, this is a vast number of people settling in an already stressed landscape. Will the resulting demands for water, sewer systems, roads, utility corridors, aggregates and urban expansion leave our protected countryside and natural heritage systems intact? Will there be enough natural lands to support biodiversity?

Why must the population grow at this rate in parts of southern Ontario? There are those that argue that such expansion is essential to support our consumptive economy. It is necessary to create jobs and a future for our young people. Growth is needed to protect our tax base and the infrastructure it supports. But is this true? There are prosperous European economies that thrive without a burgeoning population base.

And if it is true that population expansion is necessary, where does that leave northern Ontario? Those same government population projections that figure so largely in the planning of the Greenbelt predict that northern Ontario will decline in population by 8.5 per cent over the next 25 years. By the same logic, does that mean we are abandoning the north to a collapsing economy, a crumbling infrastructure and no future for our youth? Does not that prognosis call for urgent action?

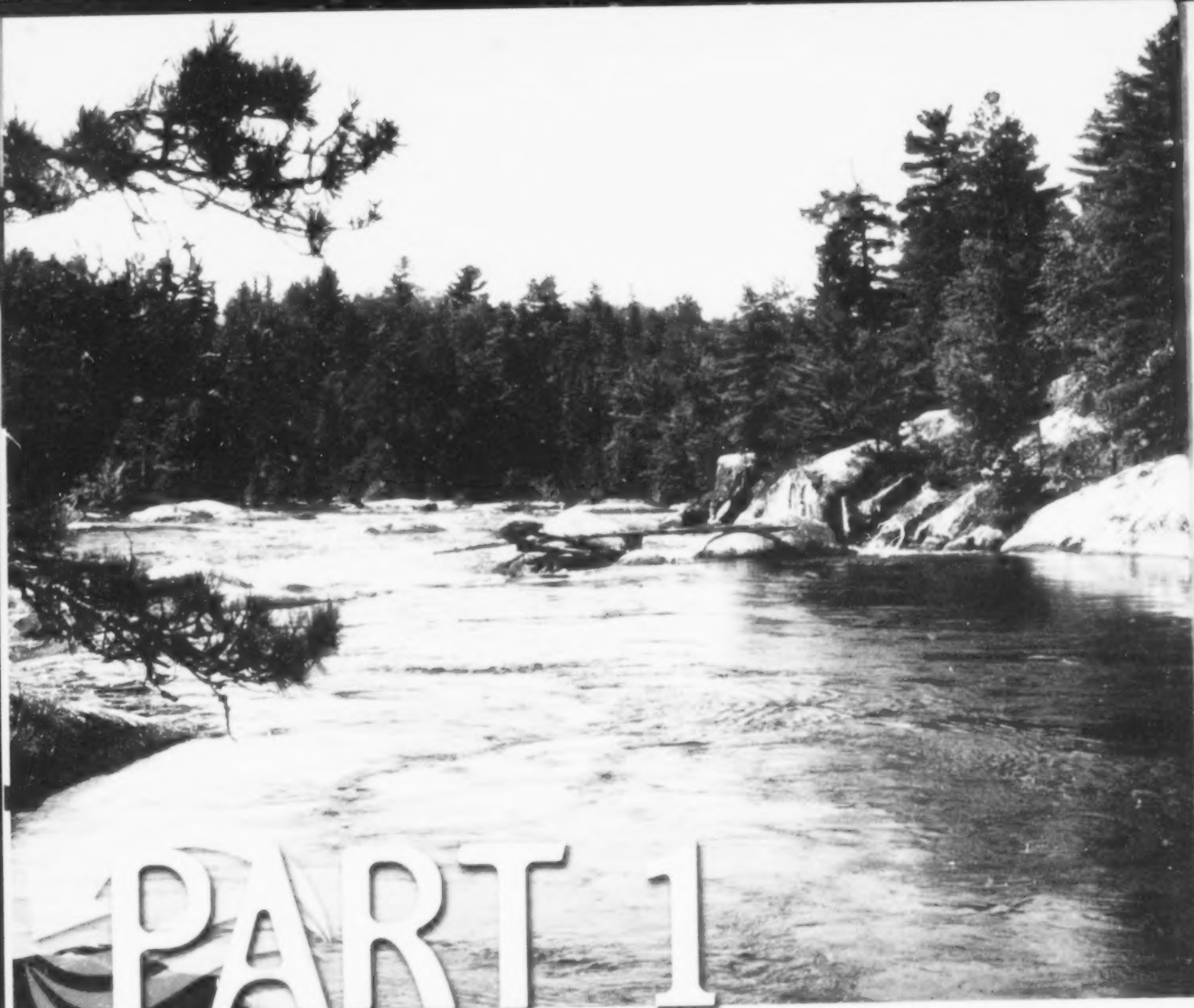
The reality is that a planning regime based on the continuous expansion of population and the growth in consumption of resources in the south-central part of the province is ultimately not sustainable. And a planning system dependent on growth also means that the communities of the north cannot be sustained through a period of depopulation and deindustrialization.

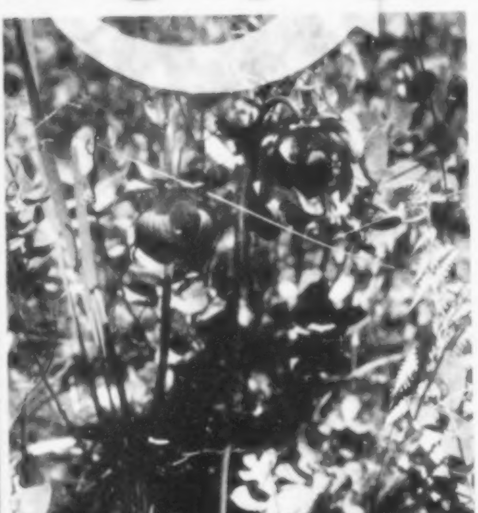
All of this is further complicated by geopolitical, biophysical and economic developments that are changing the rules of how the world works. How will climate change, peak oil, the price of electricity, and the technological revolution in communications change the way we live, work and interact with our landscape? Are we planning for the real future – or are we simply building toward the past? The planning models we use may just be too simple to cope with the complexities of the times.

At some point, and it should be soon, we will have to turn our minds collectively to what we want Ontario's society and Ontario's landscape to look like 25 years from now and beyond. We will have to cast that vision – and then begin to create a planning model that will cultivate and support ecologically, socially and economically sustainable lifestyles and communities for the north, the urban south and the rural countryside.

Gord Miller
Environmental Commissioner of Ontario

PART 1





The *Environmental Bill of Rights*

The *Environmental Bill of Rights (EBR)* gives the people of Ontario the right to participate in ministry decisions that affect the environment. The *EBR* helps to make ministries accountable for their environmental decisions, and ensures that these decisions are made in accordance with goals all Ontarians hold in common – to protect, conserve, and restore the natural environment for present and future generations. The provincial government has the primary responsibility for achieving these goals, but the people of Ontario now have the means to ensure they are achieved in a timely, effective, open and fair manner.

The *EBR* gives Ontarians the right to . . .

- comment on environmentally significant ministry proposals.
- ask a ministry to review a law or policy.
- ask a ministry to investigate alleged harm to the environment.
- appeal certain ministry decisions.
- take court action to prevent environmental harm.

Statements of Environmental Values

Each of the ministries subject to the *EBR* has a Statement of Environmental Values (SEV). The SEV guides the minister and ministry staff when they make decisions that might affect the environment.

Each SEV should explain how the ministry will consider the environment when it makes an environmentally significant decision, and how environmental values will be integrated with social, economic and scientific considerations. Each minister makes commitments in the ministry's SEV that are specific to the work of that particular ministry.

The Environmental Commissioner and the ECO Annual Report

The Environmental Commissioner of Ontario (ECO) is an independent officer of the Legislative Assembly and is appointed for a five-year term. The Commissioner reports annually to the Legislative Assembly – not to the governing party or to provincial ministries.

In the annual reports to the Ontario Legislature, the Environmental Commissioner reviews and reports on the government's compliance with the *EBR*. The ECO and staff carefully review how ministers exercised discretion and carried out their responsibilities during the year in relation to the *EBR*, and whether ministry staff complied with the procedural and technical requirements of the law. The actions and decisions of provincial ministers are monitored to see whether they are consistent with the ministries' Statements of Environmental Values (see pages 13-14).

Part 2 of this annual report reviews the use of the Environmental Registry by prescribed ministries, evaluating the quality of the information ministries post on the Registry and whether the public's participation rights under the *EBR* have been respected. In Part 3, Significant Issues, the ECO highlights a number of important issues that have been the subject of recent applications under the *EBR* or are related to recent decisions posted on the Environmental Registry. In Part 4, Ministry Environmental Decisions, the Environmental Commissioner and ECO staff assess how ministries used public input to draft new environmental Acts, regulations and policies. In Part 5, Reviews and Investigations, the ECO reviews how ministries investigate alleged violations of Ontario's environmental laws and whether applications from the public requesting ministry action on environmental matters were handled appropriately. Part 6, Appeals, Lawsuits and Whistleblowers, deals with appeals and court actions under the *EBR*, as well as the use of *EBR* procedures to protect employees who experience reprisals for "whistleblowing."

In Part 7, Ministry Progress, ECO staff follow up on the progress made by prescribed ministries in implementing recommendations made in previous annual reports. Part 8, Developing Issues, draws attention to a number of issues that the ECO and staff believe deserve stronger and more focused attention from Ontario ministries.

Ministries Prescribed Under the *EBR**

Agriculture and Food	(OMAF)
Consumer and Business Services	(MCBS)
Culture	(MCL)
Economic Development and Trade	(MEDT)
Energy	(ENG)
Environment	(MOE)
Health and Long-Term Care	(MOHLTC)
Labour	(MOL)
Management Board Secretariat	(MBS)
Municipal Affairs and Housing	(MMAH)
Natural Resources	(MNR)
Northern Development and Mines	(MNDM)
Tourism and Recreation	(MTR)
Transportation	(MTO)

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* In June 2005,the Ontario government announced Cabinet changes affecting ministries prescribed under the *EBR*. The Management Board Secretariat was merged with the Ministry of Consumer and Business Services to create the new Ministry of Government Services. The Rural Affairs portfolio also was transferred from the Ministry of Municipal Affairs and Housing to the Ministry of Agriculture and Food (OMAF) recreating the Ministry of Agriculture, Food and Rural Affairs (OMAFRA). For the sake of clarity, this annual report uses the ministry names and abbreviations that applied during the 2004/2005 reporting period.

Keeping the *EBR* in Sync with New Laws and Government Initiatives

One of the challenges facing the ECO and the Ontario government is keeping the *EBR* in sync with new laws and government initiatives in order to make sure the *EBR* remains up to date and relevant to Ontario residents who want to participate in environmental decision-making. The Commissioner and his staff constantly track legal and policy developments at prescribed ministries and in the Ontario government as a whole, encouraging ministries to update the *EBR* regulations to include new laws and prescribe new government initiatives that are environmentally significant.

There are four main factors that make it necessary to update the *EBR* regulations to include new ministries, programs and laws. First, the Ontario government constantly enacts and implements new environmental legislation. Indeed, a large number of innovative environmentally significant laws and regulations have been passed in the past 10 years, as regular readers of our annual reports will know.

Second, the Ontario government may decide to reorganize one ministry or redistribute portfolios between several ministries. For example, the Ministry of Public Infrastructure Renewal was established by the Ontario government in November 2003 with a mandate to support upgrades to roads, transit systems and other public infrastructure and to promote sound urban and rural development. To realize this vision, in spring 2005 the Ontario government enacted a major piece of MPIR legislation titled the *Places to Grow Act (PGA)*. The ECO has urged the Ontario government to prescribe MPIR under the *EBR*, and as of May 2005 this work was ongoing. In preparing for the 2005/2006 annual report, we intend to study whether it would be appropriate to request that MPIR consider prescribing the *PGA* for various parts of the *EBR*.

Third, members of the public may file an application for review requesting that ministries not currently prescribed, such as Education or Finance, be prescribed under the *EBR*, or that O. Reg. 73/94 under the *EBR* be amended to require a currently prescribed ministry to accept applications for review or investigation. The ECO has received eight applications of this nature since February 1995.

A fourth scenario arises when the Ontario government decides to revamp a program, and in doing so, alters the rights of Ontario residents under the *EBR*. For example, when the *EBR* was proclaimed in 1994, the federal *Fisheries Act* was prescribed for investigations of alleged contraventions of ss. 35(2) and 36(3). As described in the ECO's 2001/2002 annual report, the Ministries of Natural Resources and Environment have gradually withdrawn from enforcement of these *Fisheries Act* provisions. (For further discussion, see the update on this issue, pages 70-73.) Other laws and related programs that have been affected by similar changes made in the late 1990s and that are no longer subject to the full suite of *EBR* rights include the *Planning Act* and the *Conservation Authorities Act*, administered by MAH and MNR respectively.

When the Ontario government passes and then proclaims a major new environmental law, the ECO reviews the law to determine whether it would be logical for the Ontario government to prescribe it for the purposes of the *EBR* and to ensure that Ontario residents are extended rights to participate in environmentally significant decision-making on proposed regulations and instruments issued under the new law. For example, certain new MAH laws such as the *Oak Ridges Moraine Conservation Act (ORMCA)* and the *Greenbelt Act* have sweeping implications for environmental planning, and there is strong public interest in participation in their implementation. Before the public can begin to participate in decisions to issue new regulations or instruments or request investigations and reviews, a new stand-alone law such as the *ORMCA* has to be added to the lists of prescribed laws set out in O. Reg. 73/94.

In some cases, a new law such as the *Brownfields Statute Law Amendment Act, 2001*, amends existing environmental laws that are already prescribed. In these cases, the ECO may request that a ministry determine if any new environmentally significant instruments are created under the amended law and associated regulations, and if the ministry should consider amending O. Reg. 681/94, the *EBR* Instrument Classification Regulation.

If the new law is considered to be environmentally significant, the ECO then contacts the deputy minister of the ministry responsible and requests that the Act or certain parts of it be prescribed under the *EBR*. If the ministry agrees, it must then seek appropriate internal and central agency approvals and work with MOE, which is responsible for administering the *EBR* and its regulations, to ensure that appropriate amendments are made and that the proposed changes are posted on the Registry for public comment. Usually, this process takes between one and two years. In some cases, the process can take much longer. For example, the Ministry of Agriculture and Food still has not posted a Registry proposal notice to prescribe the *Nutrient Management Act (NMA)* under the *EBR* even though the ECO made its first request that it prescribe the *NMA* in fall 2001. (For further discussion, see the update on this issue in Ministry Progress, page 167.)

To illustrate the current status of various recent Acts and regulations, the ECO has prepared a summary in the following table. This table is merely an indication of the scope of the challenges faced, and is not intended to provide a comprehensive review. (For additional detail, see the annual report Supplement, pages 337-342.) As indicated, there have been serious delays in making certain laws subject to the *EBR*. The ECO is concerned about these lengthy delays because this means that the public is deprived of rights to participate in environmentally significant decisions, file leave to appeal applications and request *EBR* investigations and reviews. Moreover, the ECO is not legally empowered to subject ministry decision-making under these non-prescribed Acts to the same degree of scrutiny as would normally occur for decisions made under prescribed Acts.

Despite the delays catalogued here, there have been some positive trends in the past two years and these are worth noting. Ministries appear to be more receptive to requests for review submitted by members of the public under the *EBR* to prescribe Acts and ministries. For example, in 2004 MNR announced it would make the *Fish and Wildlife Conservation Act* subject to applications for review, after an environmental group filed an *EBR* review application requesting changes to O. Reg. 73/94. For the first 10 years of the *EBR*, this Act was exempted from *EBR* reviews.

The ECO will continue to encourage the ministries to update the *EBR* and will provide an update on progress in our next annual report. *(For ministry comments, see page 211.)*

Status of ECO Requests to Prescribe New Laws and Regulations under the *EBR* as of July 2005

Act or Regulation (Ministry)	ECO request to prescribe New Law or parts of a New Law or Regulation	Status as of July 2005 and ECO Comment
Greenbelt Act, 2005 (MAH)	The ECO wrote to MAH in April 2005 requesting that it prescribe the *Greenbelt Act* under the *EBR* for regulation and instrument proposal notices and applications for reviews.	In April 2005 MAH informed the ECO it will begin to work on the amendments required to prescribe the *Greenbelt Act* under the *EBR*.
Kawartha Higblands Signature Site Act, 2003 (MNR)	The ECO wrote to MNR in April 2005 requesting that it prescribe the *KHSSPA* under the *EBR* for review and investigation applications.	MNR responded on May 25, 2005, that the KHSSPA would be prescribed under the *EBR* once the Act is proclaimed and the boundaries are regulated.
Nutrient Management Act (OMAF and MOE) Note: In late 2003, MOE assumed jurisdiction for enforcement of several aspects of the *NMA*.	The ECO wrote to OMAF in late 2001 and again in 2002 and 2003 requesting that it prescribe the *NMA* under the *EBR* for regulation and instrument proposal notices and applications for review and investigation. The ECO has requested updates from OMAF each March since 2002.	In 2002, OMAF indicated that it needed more time to understand the implications of prescribing the Act under most parts of the *EBR*. As of July 2005, neither OMAF nor MOE had posted a proposal notice on the Registry on prescribing the *NMA*.

Oak Ridges Moraine Conservation Act, 2001 (MAH)	The ECO wrote to MAH in December 2001 requesting that it prescribe the *ORMCA* under the *EBR* for regulations and instrument proposal notices and applications for reviews.	MAH informed the ECO in early 2005 that it continues to work on the amendments to O. Reg. 73/94 that are required to prescribe the *ORMCA* under the *EBR*.
Ontario Energy Board Act (ENG)	In our 1998 annual report the ECO recommended that the *OEBA* be prescribed for regulation proposal notices and applications for reviews.	In 2003 the Ministry of Energy prescribed Clauses 88 (1) (a.1) to (g) of the *Ontario Energy Board Act, 1998* for the purposes of proposals for regulations and reviews under *EBR*.
Safe Drinking Water Act, 2002 (MOE)	In January 2003, the ECO wrote to MOE requesting that it prescribe the *SDWA* for regulation proposal notices and for applications for review under the *EBR*.	MOE prescribed the *SDWA* for regulations and reviews in the summer of 2003. The ECO agrees with MOE that *SDWA* should not be prescribed for *EBR* investigations.
Sustainable Water and Sewage System Act, 2002 (MOE)	In January 2003, the ECO wrote to MOE requesting that it prescribe the *SWSSA* for regulation proposal notices and for applications for review and investigation under the *EBR*.	MOE prescribed the *SWSSA* for regulations and reviews in the summer of 2003. (see O. Reg. 104/03). However, this Act has yet to be proclaimed because MOE has not yet developed any regulations under it.
Waste Diversion Act, 2002 (MOE)	In July 2002, the ECO wrote to MOE requesting that it prescribe the *WDA* for regulation proposal notices and for applications for review and investigation under the *EBR*.	In 2003, MOE amended O. Reg. 73/94 to require the ministry to post notices for proposed *WDA* regulations but Ontario residents are not permitted to file applications for review related to the *WDA*. The ECO believes that MOE should reconsider whether it would be worthwhile prescribing the *WDA* for *EBR* reviews.

Recommendation 1

The ECO recommends that new government laws and initiatives that are environmentally significant be prescribed under the *EBR* within one year of implementation.

Statements of Environmental Values Under Review

The *Environmental Bill of Rights* requires each prescribed ministry to develop a Statement of Environmental Values (SEV) to guide its decision-making. The SEV outlines how each ministry applies and considers the purposes of the *EBR* in its environmental decision-making, along with social, economic, scientific and other factors. The SEVs are to be considered whenever environmentally significant decisions are made in the ministry, and the ECO is required to report annually on ministry compliance with SEVs.

The ECO has pointed out for a number of years that the ministries' SEVs are vague and outdated, and that they often seem to have little impact on decision-making. Ministries do recognize that their SEVs are for the most part over 10 years old and in need of review. There was an attempt by ministries to review their SEVs in early 2003, which unfortunately came to a halt in late 2003 due to a change in government. In September 2004, this multi-ministry project was rekindled under an MOE-led director-level Steering Committee. The intention of the committee was to focus, as a first step, on elements in the SEVs that are common to all ministries. MOE also hoped to engage the policy branches in the various ministries to find ways to keep policy decision-making connected with ministry SEVs.

In March 2005, MOE reported on the progress of this committee:

> Revised, updated SEVs have been drafted for all 14 *EBR*-prescribed ministries. All ministries, including MOE, are continuing to seek approval for ultimate posting on the Environmental Registry . . . Based on work carried out in 2003, the Working Group selected topics common to all ministries, and developed common wording for inclusion in all SEVs. The intention is to create a similar look and feel to the SEVs to facilitate interpretation of the government's commitment to the environment. Other sections of the SEVs are completely unique to each ministry. A statement on Aboriginal peoples, drafted by the Ontario Native Affairs Secretariat, is included in all 14 proposed SEVs.

In March 2005, the ECO made three recommendations regarding SEVs as part of a Special Report released to complete our 10-year review of the *EBR*. The ECO recommended that:

- ministries exhort staff to adhere to their Statements of Environmental Values and that the SEVs be posted in the workplace with the endorsing signatures of the current minister and deputy minister.
- SEVs be subject to a specified periodic review to ensure that they reflect current government environmental priorities and policies.

- the *EBR* be amended to set out more detailed requirements for SEVs, including expectations that they be considered in making environmentally significant decisions, whether on a policy, Act, regulation or instrument.

These recommendations arose out of the observation that many private corporations use corporate guidance documents to ensure that the environment is considered in day-to-day business decisions. These documents derive their strength from the prominence they are given by senior management. Many corporations also use environmental management systems to help them set goals and objectives and develop procedures for meeting those goals. SEVs could similarly provide specific and measurable commitments as to how the purposes of the *EBR* will be applied when ministries make environmentally significant decisions. Ministries should be able to measure and report on their performance on a regular basis.

The ECO looks forward to seeing revised, updated SEVs posted on the Registry for public comment. *(For ministry comments, see page 211.)*

Instruments

What are instruments?

Instruments are legal documents that Ontario ministries issue to companies and individuals granting them permission to undertake activities that may adversely affect the environment, such as discharging pollution into the air, taking large quantities of water, or mining for aggregates. Instruments include licences, orders, permits and certificates of approval.

Classifying Instruments

Under the *Environmental Bill of Rights*, certain ministries must classify instruments they issue into one of three classes according to how environmentally significant they are. A ministry's instrument classification regulation is important for Ontario residents wishing to exercise their rights under the *EBR*. The classification of an instrument determines whether a proposal to grant a license or approval will be posted on the Registry. It also determines the level of opportunity for public participation in the decision-making process, whether through making comments or applying for appeals, reviews or investigations under the *EBR*. If instruments are not classified, they are not subject to the *EBR* notice and comment provisions. Moreover, if instruments are not classified, the public cannot seek leave to appeal when they are issued, or request an investigation into allegations regarding violations of instruments or reviews of instruments.

MOE-initiated review of certificates of approval

In 2000, the provincial Auditor General reported that MOE's systems were inadequate for assessing whether and to what extent certificates of approval (Cs of A) needed to be updated with new conditions and requirements – and, further, that MOE did not know the extent to which facilities were not meeting current environmental protection standards. MOE estimated that same year that since 1957 the ministry and other Ontario government agencies had issued approximately 220,000 Cs of A to dischargers of air emissions and operators of drinking-water systems, sewage works and waste management facilities. MOE also estimated that 170,000 of the Cs of A didn't require updating, but advised the provincial Auditor General that it had insufficient information to evaluate whether or not the remaining 50,000 Cs of A did require updating.

To address these concerns, MOE posted a Registry policy proposal in 2002 containing four protocols that described MOE's process for updating Cs of A, one each for Air Emissions, Drinking-Water Systems, Sewage Works and Waste Management. All of the protocols, which were finalized in February 2005, listed the criteria (i.e., the types of conditions) that should be considered for inclusion in Cs of A. The criteria included environmental protection requirements, which are set out in MOE's policies, guidelines and objectives and its standard operating, monitoring and reporting requirements. In addition, MOE indicated in the protocols for waste management, sewage works and air emissions that it would post proposed updates to Cs of A on the Registry for notice and comment if required under the *EBR*. MOE also advised the Auditor General that all Cs of A should undergo a mandatory review every five to 10 years. (Additional information about the protocols can be found on pages 81-84 in the Supplement to this report.)

The ECO was unaware that MOE had launched this broad review before finalizing the proposed protocols until some proponents filed appeals related to the new terms and conditions in their updated Cs of A. Since the proposed updates had not been posted on the Registry, the ECO requested an explanation from MOE and were advised that most of the updates were administrative in nature and therefore exempt from the public notice and comment provisions in the *EBR*. In early 2004, MOE acknowledged that three of the protocols had been applied since late 2002 and that approximately 1,900 instruments were updated between late 2002 and early 2004. MOE also acknowledged that, by its own estimates, a significant portion of these instruments were not posted on the Registry. At our request, MOE provided the ECO with before-and-after versions of a sample of updated Cs of A so that we could evaluate whether the changes were environmentally significant.

ECO staff reviewed the criteria defined in the protocols and concluded that many of the criteria were environmentally significant in nature. For instance, the sample Cs of A were updated to require compliance with current MOE environmental protection requirements and, where relevant, Cs of A were updated to include monitoring of waste streams and effluents. Some of the sampled Cs of A were also updated to include performance limits, such as maximum flow rates, and closure plans.

Although the ECO recognizes that posting potentially thousands of proposal notices for updates to existing Cs of A on the Registry is a daunting task, the public has the right to know which Cs of A are being updated and what environmentally significant amendments are being considered. In future, the ECO urges ministries to advise the ECO if they are planning to make system-wide changes to approval documents and to discuss how these changes can be done so that the public's rights under the *EBR* are respected.

Effect of public comments on instruments

As part of our work, the ECO reviews ministry decision-making on selected instruments. In order to illustrate how the public is participating in government decision-making, two of the ECO's reviews are summarized below. These examples confirm that instrument proposals can evoke strong public interest.

Permit to take water for aggregate washing

Cedarwell Excavating Ltd, located in Hanover, Ontario, in Grey County, takes water from a dugout pond for an aggregate washing operation. Once the water has been used, it drains into a settling pond through a closed loop system and filters through a clear stone berm back into the dugout pond, thus circulating the water for reuse.

At the beginning of 2004, Cedarwell applied to the Ministry of the Environment for a permit to take water (PTTW) under section 34 of the *Ontario Water Resources Act (OWRA)* for its washing operation. The PTTW proposal was posted on the Registry on February 12, 2004, for a 30-day comment period. Eight different submissions from 106 commenters (including a petition signed by 100 people) were received and all voiced concerns over the proposal. (For further information on this permit, see pages 62-64 in the Supplement to this report.)

MOE approval was granted in April 2004 for a PTTW allowing Cedarwell to extract a maximum of 239,760 litres of water per day for a period of "two years from the date of issue." MOE summarized the comments on the Registry decision notice: the water might not be reused and/or might be used for a different purpose, including sales; the aggregate washing might result in clogging of the subsurface with fine material;

the source pond might be expanded in size to create a 20-acre "lake"; and the water taking might result in adverse effects to the water table at surrounding wells as well as to the neighbouring wetlands and lakes.

MOE did a thorough job of summarizing and responding to the majority of the comments on this proposal. In addition, the ministry considered many comments and added certain terms and conditions to the PTTW based on public concerns. For instance, MOE addressed concerns regarding the clogging of the on-site settling pond with fine minerals and fuel leaks from trucks.

However, MOE did not address all of the public's concerns and did not use all of its powers in defining the conditions of the PTTW. For instance, MOE provided a weak response to concerns that the aggregate washing machinery may contaminate the local water supply. MOE argued that "this concern applies to any type of land use or activity" and that "it is the responsibility of all land owners to ensure that proper measures are in place to prevent leaks and spills." However, MNR staff only later clarified that this aggregate site's wash plant operation has been required to maintain a spills control contingency plan since October 2003.

When concerns about the credibility of the hydrogeological study submitted by the aggregate operator were raised, MOE responded by saying that "the decision to issue a Permit to Take Water for aggregate washing was based upon the Ministry's review of the PTTW application, information contained in the hydrogeological study, and evaluation of the local site conditions." The absence of independent, up-to-date analyses of local hydrogeological conditions is often a concern for members of the public in such situations. The adequacy of the ministry's information on groundwater resources has been widely debated in recent years, as part of a larger debate on the need for a source protection approach for drinking water. New legislation is expected to be introduced in 2005 that will require (among other things) the development of Source Protection Plans on a watershed level and that will identify well-head and intake protection zones and significant recharge areas and other vulnerable areas. Hopefully, in coming years, MOE and municipalities will have access to such background information.

Edwards Landfill site expansion

On February 10, 2005, MOE approved an amendment to the Provisional C of A for the Edwards Landfill site in Haldimand County under the *Environmental Protection Act (EPA)*. Prior to the amendment, the C of A specified a maximum daily fill rate of 10 tonnes per day of solid non-hazardous municipal waste from Haldimand County. With the approval of this amendment, the site is authorized to accept as well 490 tonnes per day of solid non-hazardous industrial, commercial and institutional (IC&I) waste from across Ontario.

The Edwards Landfill site operated from 1959 to 1977, during which time municipal waste was deposited into shallow unlined trenches. Between 1977 and 2005, the site was used intermittently. After conducting a site investigation and waste characterization study, in 2004 MOE granted the site owner/operator, Haldimand-Norfolk Sanitary Landfill Inc., an amendment to allow for the redesign of the site to current standards for landfill design and operation, without increasing its original capacity. Since there is historical evidence that substantial quantities of hazardous waste were deposited at the site, the decommissioning plan for the existing waste disposal areas requires that the hazardous waste materials be segregated and disposed of off-site. The new design for the site includes a leachate collection system that will be installed above a liner.

The 2004 amendment also required a Public Liaison Committee (PLC) be established "as a forum for dissemination of information, consultation, review and exchange of information regarding the operation of the site, including environmental monitoring and maintenance, complaint resolution and review of new approvals or amendments to existing approvals related to the operation of the Site."

The 2005 amendment required the site owner to begin decommissioning the former waste disposal area by excavating the waste and backfilling the excavated area with clean uncontaminated soil by early March 2005. It also requires that all liquid and hazardous waste be removed from the excavated waste and disposed of at an appropriate licensed hazardous waste disposal facility. Solid non-hazardous waste in the excavated waste may be deposited in the newly developed clay-lined area of the site. The 2005 amendment also includes three new conditions related to traffic control in the area.

Public participation & the *EBR* process

The proposals to redesign the Edwards Landfill site and to increase the maximum daily fill rate have been quite controversial. Several groups, including the County of Haldimand, the Grand River Conservation Authority, Six Nations of the Iroquois Confederacy, and a local citizens group called Haldimand Against Landfill Transfers, have all voiced concerns about the proposals. They note that the revised C of A represents a significant change to the daily fill rate and nature of the waste that the site can accept. A 50-fold increase in the maximum daily fill rate for the site effectively changes the site from a local municipal waste site to a site that can accept IC&I waste from

across the province. Although the capacity of the site has never changed, according to MOE, the increase in the maximum daily fill rate means that there will be a significant increase in the truck traffic in the area.

The proposal was posted on the Registry for the first time in June 2004, with a 30-day comment period. MOE reposted it in December 2004, again with a 30-day comment period during which MOE received 155 comments. Due to the number of comments and the scope of the issues raised, MOE provided a link in the decision notice to a document in which it summarized the comments and explained how they were considered. The summary document also includes MOE's summary of numerous comments it received that it considered to be related to the 2004 decision. (The comments are discussed in greater detail on pages 66-70 of the Supplement.)

ECO Comment

MOE complied with the public participation rights under the *EBR* and provided a comprehensive summary of how it considered comments received on this proposal. The ECO commends MOE for explaining how comments unrelated to the subject proposal had been addressed in the decision to approve the site redesign. Since the Edwards Landfill site is privately owned, it is not subject to the *Environmental Assessment Act* unless the undertaking is specifically designated by the Minister of the Environment. However, it is subject to the public participation rights defined in the *EBR*. Due to the number of requests for additional time to comment and for an environmental assessment, and since the comment period occurred over Christmas, the ECO believes that MOE should have formally extended the comment period or provided enhanced public participation such as public meetings under s. 24 of the *EBR*.

Furthermore, the ECO does not understand why the increase in the daily fill rate did not trigger a requirement for an Environmental Review Tribunal hearing under s. 30 of the *EPA*. The amount of IC&I waste approved for this site is substantially greater than the amount of waste produced by 1,500 persons in a year, which is the trigger under the *EPA*. The ECO urges MOE to clarify how it applies s. 30 of the *EPA* to waste streams other than domestic waste.

MOE's decision to approve the amendment to the Edwards Landfill C of A triggered two leaves of appeal under the *EBR* and an application for review of MOE's approval process for dormant landfill sites. The ECO will review the application for review after a decision has been made.

(For additional information about the application for review of the Edwards Landfill C of A and the leave to appeal applications, refer to pages 66-70 and 248 respectively in the Supplement to this report.) *(For ministry comments, see pages 211-212.)*

Education

The ECO's educational mandate under the *EBR* is to ensure that Ontarians are able to participate in a meaningful way in the province's environmental decision-making process. There are three main components to the ECO's education program. First, our Information Officer handled over 1,300 direct inquiries to our office last year, via telephone calls, faxes, letters and e-mails. The full resources of the office are used to ensure that members of the public are responded to efficiently and courteously so they will understand how they can use their environmental rights under the *EBR*.

The second component is the work of our Education Advisor and our educational outreach program. Last year the Environmental Commissioner and the Education Advisor made presentations to over 11,000 people at approximately 160 broad-based environmental events throughout Ontario.

The final component of the ECO's education program is our Web site, which has a wide range of information aimed at helping Ontarians exercise their legislated environmental rights under the *EBR*. To learn more, please visit our Web site at www.eco.on.ca.

As always, we invite you to call us with your questions, comments, and requests for information, or, if you have a group of over 25 people, for a presentation by a speaker from our office. Our phone numbers are 416-325-3377, or toll free, 1-800-701-6454.

The ECO's Resource Centre

The ECO's Resource Centre (RC) exists to provide access to environmental information for the residents of Ontario, as well as to support the research needs of ECO staff. The RC's Ontario-focused environmental collection is comprised primarily of a comprehensive collection of government publications and a comparable number of books. With the exception of the Legislative Assembly of Ontario Library, which is not open to the public, this unique collection is duplicated in no other library in the Greater Toronto Area.

The non-circulating collection of approximately 5,000 documents is accessible through an online catalogue on the ECO's Web site. The subjects include:

- General/subject specific books on a wide range of timely environmental topics
- Ontario government publications
- Federal government reports
- International governmental and non-governmental publications
- Corporate/government/ENGO annual reports
- Environmental law and policy publications
- 100 journals
- Reference works
- Environmental management literature
- All four daily Toronto newspapers
- Ministry of the Environment press clippings

Staffed by a full-time librarian, the Resource Centre is open to the public five days a week, from 9:30 a.m. to 5 p.m. It is located at 1075 Bay Street, Suite 605; Toronto, ON M5S 2B1

Tel: 416-325-0363
FAX: 416-325-3370
resource.centre@eco.on.ca
www.eco.on.ca/english/resouctr/index.htm

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PART 2

The Environmental Registry

The Environmental Registry is the main component of the public participation provisions of the *Environmental Bill of Rights*. The Registry is an Internet site where ministries are required to post notices of environmentally significant proposals for policies, Acts, regulations and instruments. The public then has the opportunity to comment on these proposals before decisions are made. The ministries must consider these comments when they make their final decisions and explain how the comments affected the decisions. The Registry also provides a means for the public to become informed about appeals of instruments, court actions and other information about ministry decision-making. The Registry can be accessed at: www.ene.gov.on.ca/envision/env_reg/ebr/english/index.htm

Quality of Information

The Environmental Registry is only as good as the information it contains. The *EBR* sets out basic information requirements for notices that ministries post on the Registry. The ministries also have discretion on whether to include other information. Previous annual reports of the Environmental Commissioner of Ontario have recommended that in posting information on the Environmental Registry, ministries should use plain language and provide clear information about the purpose of the proposed decision and the context in which it is being considered. Ministries should clearly state how the decision differs from the proposal, if at all, and explain how all comments received were taken into account. All notices should provide a ministry contact name, telephone and fax number, as well as hypertext links to supporting information whenever possible.

The ECO evaluates whether ministries have complied with their obligations under the *EBR* and exercised their discretion appropriately in posting information on the Registry. This ensures that ministries are held accountable for the quality of the information provided in Registry notices.

Comment periods

The *EBR* requires that ministries provide the public with at least 30 days to submit comments on proposals for environmentally significant decisions. Ministries have the discretion to provide longer comment periods, depending on the complexity and level of public interest in the proposal. The ECO is pleased that all proposal notices placed on the Registry in 2004/2005 were posted for at least 30 days.

The Ministry of the Environment posted 25 out of 42 proposals for new policies, Acts or regulations for 45 days or more. The Ministry of Natural Resources posted 18 out of 45 proposals for new policies, Acts or regulations for 45 days or more. The ECO is pleased with MOE's improved effort in allowing for longer comment periods on its proposals.

Adequate time to comment on Acts

The ECO commends MOE for allowing a significant comment period on its proposal for the *Environmental Enforcement Statute Law Amendment Act, 2004* (Bill 133). The ministry originally had permitted only a 30-day comment period. However, when the ECO and other interested stakeholders raised concerns, MOE recognized that the proposal's complex nature warranted a longer comment period. The ministry reposted its proposal notice, lengthening the comment period to 71 days.

The Ministry of Energy provided a reasonable amount of time for public consultation on a large, complex piece of legislation called Bill 100, the *Electricity Restructuring Act* (see pages 103-106). The ministry posted its proposal in June 2004 for a 45-day comment period and concurrently held public hearings on the legislation. ENG has provided a longer comment period in the past on another large, complex piece of legislation, such as a 70-day comment period for the *Energy Competition Act* in 1998. However, ENG reported to the ECO before the Bill 100 process began that the timetable for the bill was tight; it was introduced in June 2004 with the government hoping to achieve (and achieving) Royal Assent by December 2004. The ECO is pleased that ENG undertook public hearings in addition to using the Environmental Registry, since such initiatives expand upon the public consultation opportunities afforded by the *EBR* for significant environmental decisions.

Description of proposals

Ministries are required to provide a brief description of proposals posted on the Registry. The description should clearly explain the nature of the proposed action, the geographical location(s), and the potential impacts on the environment. During this reporting period, descriptions of proposals for policies, Acts and regulations generally met the basic requirements of the *EBR*. The proposal notices provided brief and understandable explanations of the actions the ministries were proposing. However, ministries could still improve the contextual background information for their proposals, since many readers may not be familiar with environmental law and policy in Ontario.

The quality of descriptions for instrument proposal notices was again varied in 2004/2005. Prescribed ministries have taken steps toward providing better descriptions. However, improvements can still be made, particularly by MOE. In the case of some certificates of approval, MOE is simply relying on the verbatim description of the proposal written by the company requesting approval. Such descriptions may be difficult for lay people to understand, especially if they contain technical jargon or are overly brief.

Access to supporting information

The majority of proposals for policies, Acts, and regulations posted on the Registry in 2004/2005 provided access to supporting information by listing a contact person, phone number and address. The ECO appreciates the ministries' efforts in this regard. However, as observed in previous annual reports, many of MOE's instrument proposals failed to provide a contact name. The vast majority of policy proposals had "hypertext" links to supporting information, which can be an excellent aid to the public. Unfortunately, in many cases, users who tried to access the supporting material found that the link connected to a list of all government statutes and not directly to a specific document of interest.

Environmental impacts

The ECO has expressed concern in previous annual reports that ministries are not adequately explaining the environmental impacts of proposals. Although the *EBR* does not legally require ministries to include this information, it provides the public with the information necessary to make informed comments on proposals. In 2004/2005, most ministries failed to provide an adequate explanation of potential environmental impacts in their proposal notices for policies, Acts, regulations, and instruments. Environmental impacts were typically explained only in regulations proposed by MNR and MOE.

Description of the decision

Once a ministry has made a decision on a proposal posted on the Registry, the *EBR* requires the minister to provide notice of the decision as soon as possible. The description of the decision in a Registry notice lets residents of Ontario know the outcome of the public consultation process. Most descriptions of ministry decisions, particularly for instruments, continue to be quite brief. Some simply stated that the decision was "to proceed with the proposal" or "approval granted." In the interest of clarity and transparency, ministries should include the dates on which the decision was made, when it became effective, and the regulation number, if applicable.

Explaining how public comments were addressed

The *EBR* requires the prescribed ministries to explain how public comments were taken into account in making a decision. Ministries should take the time and effort to summarize the comments, state whether the ministry made any changes as a result of each comment or group of related comments, and explain why or why not. Without this description, commenters will not know whether their comments were considered. In situations where there is a large number of comments, ministries should make an effort to summarize them appropriately and describe their effect on the decision.

Summary

The Environmental Registry usually provides the first point of contact for Ontario residents who want to participate in environmental decision-making. The Registry should be as user-friendly as possible. The recommendations contained in this and previous annual reports are intended to improve the quality of information on the Registry and to ensure that the public is able to participate fully in Ontario's environmental decision-making process. *(For ministry comments, see page 212.)*

Unposted Decisions

Under the *EBR*, prescribed ministries are required to post notices of environmentally significant proposals on the Environmental Registry to provide public notification and solicit public comment. However, sometimes ministries fail to meet this obligation, and the ECO must make inquiries and report to the public on whether *EBR* public participation rights have been violated. Below are two examples from the 2004/2005 reporting period.

(Pages 1-14 of the Supplement to this report provide a description of all the unposted decisions reviewed by the ECO this year.)

Excluding the eastern wolf from Species At Risk protection

For several years, the ECO has taken an active interest in the protection of Ontario species at risk, and has been following initiatives related to the eastern wolf. Added to the Ministry of Natural Resources' list of Species at Risk in Ontario (SARO) in 2004, the eastern wolf is now considered a "species of special concern." A decision notice on the Environmental Registry announced this and other changes to the SARO list on September 30, 2004. The new list was developed after public consultation through the Registry.

The ECO was surprised and disappointed to learn that while MNR was publicly announcing the new protected status of the eastern wolf, it was quietly changing policies to allow ongoing trapping of this vulnerable species in the province's parks. Without public notification or consultation, MNR made two policy decisions in September 2004 that excluded this species from protection in Ontario's parks – protection that until that time had applied to all species at risk:

1. On September 22, 2004, without consultation or notification through the Environmental Registry, MNR released a new Ontario Parks Policy on protection of species at risk. The policy clarifies the ministry's power to exclude "species of special concern" from protection in the province's parks on a case-by-case basis. It states that if such an exception is made, and is deemed environmentally significant, MNR will consult on the change via the Registry. Exceptions are also to be recorded through a "decision record."
2. On September 28, 2004, MNR finalized such a "decision record" on the eastern wolf, excluding it from protection in Ontario's parks. Hunting and trapping of the eastern wolf will be allowed even in parks and protected areas. This decision received no Registry posting or other public consultation.

In response to the ECO's questions, MNR argued that exempting this species from the protection policy was not environmentally significant and did not merit Registry posting, because the pre-existing situation – before the eastern wolf was designated as a protected species – had been to allow hunting and trapping in parks. MNR also argued that it will be developing an enhanced wolf management framework in the future, and protecting the eastern wolf in the meanwhile would be premature.

The ECO does not accept MNR's rationale for exempting this species from protection in Ontario's parks without public consultation, and urges the ministry to post a proposal notice. Major management decisions on any species at risk are environmentally significant policies. Moreover, management of a top predator is particularly important ecologically.

Energy efficiency and conservation policies

In our 2002/2003 annual report, the ECO recommended that provincial ministries consult with the public and take full advantage of the Environmental Registry in developing energy conservation initiatives. The ECO observed in 2004/2005 that the Ministries of Energy, Agriculture and Food, Environment, Natural Resources, and Management Board Secretariat were involved in provincial initiatives to increase energy efficiency and conservation, promote renewable energy, and reduce greenhouse gas emissions. These initiatives included the following two examples of new energy policies that were not posted on the Registry:

- On April 1, 2004, MBS announced the government's intention to reduce electricity consumption in its buildings by 10 per cent by 2007. After inquiry by the ECO, MBS posted an information notice on the Registry, but did not consult on this policy by posting a proposal notice. MBS informed us that ENG would be consulting on other related initiatives as they were developed.
- On November 26, 2004, the Premier and OMAF announced that by January 1, 2007, Ontario gasoline must contain an average of 5 per cent ethanol. In response to ECO inquiries, OMAF suggested that its failure to post a proposal notice was due to the roles played by ENG, MOE and Cabinet in developing and implementing this policy.

In March 2005, the ECO wrote to ENG, copying the other ministries listed above, to express concern about a lack of public consultation on government energy efficiency, renewable energy and conservation policies. ENG's response did not address the specific examples raised by ECO, nor did it provide any assurance that future initiatives will adhere to the public consultation requirements of the *EBR*.

The ECO is very supportive of government initiatives to reduce the environmental consequences of energy use by promoting renewable energy, legislating cleaner fuel blends, and introducing conservation measures. However, the Ontario public has a right to the benefits of *EBR* consultation on these environmentally significant policies. The ECO urges prescribed ministries to honour the public's right to be consulted on the goals that are set and the approaches chosen to develop a more sustainable energy future for Ontario.

On June 17, 2005, MOE posted a proposal to the Registry for a regulation to implement the 5 per cent ethanol requirement by 2007.

We will continue to monitor ministries' progress on these matters.

(For more on Ontario government energy conservation initiatives, see pages 185-190 of this report. The information notices referred to above are discussed in Section 2 of the 2004/2005 annual report Supplement.) *(For ministry comments, see page 212.)*

Recommendation 2

The ECO recommends that all ministries and prescribed agencies actively consult with the Ontario public, using the Environmental Registry, when setting environmentally significant goals and targets for the province's energy sector.

Information Notices

A ministry may post an "information notice" in cases where provincial ministries are not required to post a proposal notice on the Environmental Registry for public comment. During the 2004/2005 reporting year, seven ministries posted 105 information notices related to policies, regulations and instruments:

- MAH – 18
- MNDM – 11
- MNR – 44 (and 25 additional notices for Forest Management Plans)
- MOE – 24
- MTO – 3
- MOHLTC – 2
- MBS – 3

The ECO reviews whether or not ministries use information notices appropriately and considers whether notices are clear and complete. Please refer to Section 2 in the Supplement to this report for a discussion on the appropriate use of information notices and on the components of a quality information notice. The Supplement also presents the ECO's detailed review of each information notice posted during the year.

This year, MOE posted two information notices announcing the release of reports about the emissions reductions achieved by the ministry's Drive Clean program. One notice was about a report on the reductions achieved by heavy-duty diesel vehicles between 2000 and 2002. The second focused on reductions achieved by light-duty and non-diesel heavy-duty vehicles for the years 1999 to 2003. The ECO is pleased that MOE posted information notices about these reports, as we had recommended in our 2003/2004 annual report (page 138). Both notices provided public access to the reports through links to the homepage of MOE's Drive Clean Web site. In order to better facilitate access, the notices could have provided direct hypertext links to the reports.

The ECO is also pleased that MOE posted an information notice to provide the public with an overview of the ministry's work to address air pollution. The notice explained that the ministry had recently developed three initiatives: a position paper to update Ontario's regulatory framework for local air quality; a guideline for air dispersion modeling; and a guideline for the implementation of air standards in the province. The notice also described the status of air standards for various substances. A link to the ministry's Web site providing further information regarding each of the activities, including opportunities for input, was included. The notice provided a useful common point of access for various proposals that were separate yet related. (For further information regarding the ministry's air activities, please refer to pages 55-58 of this annual report.)

In February 2005, MNR posted an information notice to announce the release of Our Sustainable Future, a report outlining the ministry's new strategic directions. The report, which builds on the ministry's previous five-year plans, outlines a vision, mission and statement of commitment. The report also presents five organizational goals, accompanied by a series of strategies and proposed actions, which focus on the areas of a healthy natural environment; economic growth; public health and environmental safety; stewardship, partnerships and community involvement; and improved public services. The report indicates MNR's commitment to develop a state of the resources reporting initiative to support the plan's implementation.

Exception Notices

The *EBR* allows ministries, in very specific circumstances, to post "emergency exception notices" or "equivalent public participation exception notices." During the 2004/2005 reporting year, MOE posted six emergency exception notices and one equivalent public participation exception notice. MNR posted one emergency exception notice and eight equivalent public participation exception notices. The ECO reviews whether ministries use exception notices appropriately and considers whether the notices are clear and complete.

(Please refer to Section 3 of the Supplement to this report for a discussion on the appropriate use of exception notices and on the components of a quality exception notice. The Supplement also provides a more detailed description of and comment on each notice.)

This year, MOE used an equivalent public participation exception notice to inform the public of its decision to exempt portable ready-mix concrete manufacturing plants from the moratorium imposed on new and expanding permits to take water (PTTWs). The exemption was granted by amending O. Reg. 434/03 under the *Ontario Water Resources Act*, a regulation which had imposed a one-year moratorium on new and expanding PTTWs to certain industries in areas where Conservation Authorities exist. The moratorium was put in place while the ministry reviewed the rules and processes governing water takings in the province. MOE explained that an exception notice was warranted because the ministry had consulted on the environmentally significant aspects of the decision as part of its consultations on the White Paper on Watershed-based Source Protection Planning.

But MOE does not appear to have consulted on this exemption for the portable ready-mix concrete manufacturers in a full and transparent way. MOE did not outline any proposal to exempt this sector in its White Paper or in its Registry notice about the White Paper posted in February 2004. Nor is there any evidence in the ministry's summary report on the White Paper consultations that MOE solicited or received input on this matter in its consultation sessions. In December 2004, MOE amended its Water Taking and Transfer Regulation and repealed O. Reg. 434/03. (For further information, please refer to pages 116-120 of this report.)

In another case, MOE posted an emergency exception notice this year to inform the public that it had issued *Environmental Protection Act* orders requiring a company to stop depositing paper fibre biosolids (PFBs) on its Flamborough property immediately, to remove all deposited material in the near future, and to retain professionals to assess the impacts of PFBs on soil, vegetation and ground and surface water. The company had deposited over 70,000 tonnes of PFBs, sand and compost on the site in order to construct a berm for use at an on-site private shooting range. Effluent from the berm's drain pipe, sampled by MOE staff shortly before the orders were issued in April 2004, was found to be acutely toxic and to exceed Provincial Water Quality Standards for a number of parameters, including *E.coli*. The berms were constructed in an environmentally sensitive and provincially significant area, near a cold water fishery.

The ECO agrees that an emergency exception notice was warranted in this case, but believes that the ministry should have provided additional important details, such as when the order was issued. The company subject to the orders is the same company that produces Sound-Sorb. (For information about Sound-Sorb, please refer to pages 150-153 of the ECO's 2002/2003 annual report.)

MOE also failed to provide important details in some of the other exception notices it posted on the Registry during this reporting period, such as effective expiry dates in notices about temporary certificates of approval issued to a rendering plant in Dundas. The ECO encourages all ministries to ensure the quality and readability of notices posted on the Registry, especially the accuracy of terms that may be used to search the Registry.

Late Decision Notices

When ministries post notices of environmentally significant proposals for policies, Acts, regulations or instruments on the Environmental Registry, they must also post notices of their decisions on those proposals, along with explanations of the effect of public comments on their final decisions. But sometimes ministries either fail to post decision notices promptly or do not provide the public with updates on the status of old, undecided proposals. In those cases, neither the public nor the ECO is able to tell whether the ministry is still actively considering the proposal, has decided to drop the proposal, or has implemented a decision based on the proposal while failing to post a decision notice. This reduces the effectiveness of the Registry, and may make members of the public reluctant to rely on the Registry as an accurate source of information.

While there is no legal requirement that ministries provide updates on old, undecided proposals, it is helpful to the public. The ECO encourages ministries to post decision notices stating that the ministry has decided not to proceed or has postponed a particular decision. This action is more informative than allowing original proposal notices to languish on the Registry for years. The *EBR* requires the ECO to monitor ministries' use of the Registry, and specifically requires the Environmental Commissioner of Ontario to provide a list of all proposals posted during the reporting period for which no decision notice has been posted. That list is included in the Supplement to the annual report.

The ECO periodically makes inquiries to ministries on the status of proposals that have been on the Registry for more than a year and suggests they post either updates or decision notices. Below is a small sampling of the many proposals for policies, Acts, regulations, and instruments posted before March 31, 2004, and still found on the Registry in April 2005. Some of these proposals were posted as far back as 1997. The ECO urges ministries to update the public and the ECO on the status of these proposals.

Ministry of the Environment

PA00E0022	Proposed Environmental Management Agreement between Environment Canada, Ministry of the Environment and Algoma Steel Inc. (2000/05/25)

Ministry of Transportation

AE03E4512	Smart Transportation Bill (Bill 25) (2003/07/09)

Ministry of Northern Development and Mines

PD02E1001	Provincially Significant Mineral Potential Procedural Manual for Ontario (2002/08/16)

Ministry of Natural Resources

PB02E6010	National Recovery Plan for the Red Mulberry (2002/06/18)

Ministry of Agriculture and Food

TC00E0001	Intensive Agricultural Operations in Rural Ontario (2000/07/13)

Ministry of Municipal Affairs and Housing

PF03E0001	Public Consultation on the Central Ontario Smart Growth Panel's draft advice on a Smart Growth Strategy (2003/02/19)

Ministry of Health and Long-Term Care

PG04E0005	Protocol for the Issuance of a Boil Water or a Drinking Water Advisory (2004/01/28)

Ministry of Consumer and Business Services

RL7E0002.P	Fuel Oil Regulation (1997/01/31)

Management Board Secretariat

PN7E0001.P	Government Business Plans (1997/07/03)

Technical Standards and Safety Authority

IT9E0086	GHA reg. 521/93 – Application for variances from the *Gasoline Handling Act* (1999/11/16)

The ECO also reminds prescribed ministries to post decision notices in a timely manner on environmentally significant pieces of legislation. During this reporting year, there were several pieces of legislation, such as the *Electricity Restructuring Act, 2004* (Bill 100) and the *Strong Communities (Planning Amendments) Act, 2003* (Bill 26), that had been given Royal Assent by the end of 2004. However, decision notices were not posted on the Environmental Registry until mid-March 2005 for Bill 100 and mid-April 2005 for Bill 26. When ministries do not post decision notices in a timely manner, the public and the ECO are unable to assess how public comments were considered, even if it is known that a decision has been reached. *(For ministry comments, see page 212.)*

PART 3

Significant Issues

Each year the ECO highlights a number of environmental issues that have been the subject of recent applications under the *EBR* or are related to recent decisions posted on the Environmental Registry.

This year the ECO has focused on several major initiatives related to land use planning and community sustainability, consistent with the theme of allocating Ontario's landscape. In previous years, the ECO has reviewed the environmental implications of government land use policies and decisions on how to plan the protection, development and use of Ontario's landscape. The ECO has noted the growing development pressures in southern Ontario, and we have expressed concern about the long-term ecological soundness and sustainability of current sprawling development patterns.

Following the election of the new Ontario government in October 2003, the Ministry of Municipal Affairs and Housing launched a number of reforms to Ontario's laws and policies. Three of these initiatives – the Provincial Policy Statement, 2005, the *Strong Communities Act*, and the *Greenbelt Act* and Plan – were posted by MAH on the Registry and decided upon in the reporting period. These initiatives are reviewed in detail below. MAH staff did a commendable job consulting the public using the Registry notice and comment process. The ministry also exerted considerable effort to engage the public and stakeholders and respond to concerns, thus helping to ensure that these three initiatives will become important first steps toward community sustainability in southern Ontario.

The articles in this section also review other important commitments announced in the past two years – such as a long-term plan for growth management in southern Ontario and adequate funding for infrastructure – that will be crucial to the success of any plan to allocate Ontario's landscape in ways that are sensitive to sustainability and resource conservation.

This section also includes discussions of several other high-profile issues. For example, the ECO notes that the Ministry of the Environment continues to struggle in its efforts to develop a coherent and timely plan for management of septage. The update on the *Fisheries Act* reviews the current status of enforcement of this powerful federal law by the Ministry of Natural Resources and MOE. Progress on issues such as climate change, the Annex 2001 Great Lakes water management framework, biodiversity and mining in protected areas is also discussed.

Strong Communities Act

The *Strong Communities (Planning Amendment) Act, 2004 (SCA)*, enacted in November 2004, was the first of a number of land use planning regime changes that have been made or proposed by the current government since it was elected in October 2003. When it was introduced in the legislature in December 2003, the Minister of Municipal Affairs and Housing announced that the *SCA* would give communities the tools to control their own planning and allow locally elected decision-makers to control urban sprawl.

"Shall be consistent with"

One of the most significant changes to the *Planning Act* made by the *SCA* is the requirement that decisions by planning approval authorities "shall be consistent with" provincial policy statements. This replaces the former wording in section 3 of the *Planning Act* that had provided that decision-makers "shall have regard to" provincial policy statements. The "shall be consistent with" language is more prescriptive than "shall have regard to" in directing decision-makers to apply the 2005 Provincial Policy Statement (PPS) in planning decisions, meaning that provincial policy is likely to be applied more consistently in planning decisions, and provincial interests given priority. However, the significance of the "shall be consistent with" language will depend a great deal on the substance of the policies in the 2005 PPS. As discussed in the ECO's review of the 2005 PPS (see pages 39-47), there is some evidence that the policies in the new 2005 PPS may not be strongly worded enough to adequately protect the environment and natural heritage values in the face of pressure from development and other provincial interests.

Provincial interest

The *SCA* amends the *Planning Act* to give the Minister of Municipal Affairs and Housing the power to declare a provincial interest in an appeal before the Ontario Municipal Board (OMB) related to an official plan or bylaw if the minister believes it may adversely affect a matter of provincial interest. When the minister has declared a provincial interest, the OMB's subsequent decision will not be final and binding unless that decision is confirmed by Cabinet. Cabinet may decide to confirm, vary or rescind the OMB's decision, and in so doing, may direct the minister to modify the provisions of an official plan or amendment that adversely affects a matter of provincial interest, or repeal or amend a zoning bylaw or amendment. Cabinet is under no obligation to adhere to the 2005 PPS when it reviews an OMB decision on the basis of a declared provincial interest.

The *Planning Act*: Changes in Wording

Much attention has been given to the change in wording that requires decision-makers to be consistent with provincial policy. This language has been used in the *Planning Act* in the past. In 1994, the NDP government amended the Act to require that decisions be consistent with provincial policy statements. This approach had been recommended by the Commission on Planning and Development Reform in Ontario, headed by John Sewell in the early 1990s. At the same time that the government introduced the new language, it produced lengthy and detailed new provincial policies, the 1995 *Comprehensive Set of Policy Statements*. Many considered these policy statements and the implementation guidelines that accompanied them to be confusing and sometimes contradictory. Less than one year after the Conservative government was elected in June 1995, it amended the *Planning Act* to return to the "shall have regard to" language and released a single consolidated document, significantly reduced in size, titled the Provincial Policy Statement (1997 PPS).

The *Strong Communities Act, 2004*, does not provide a definition of the phrase "shall be consistent with." Because this language was used in the *Planning Act* for a brief period in the mid-1990s, there are few Ontario Municipal Board (OMB) decisions considering the meaning of this phrase. These decisions suggest that the "be consistent with" standard requires greater adherence to the 2005 PPS by municipal decision-makers and the OMB. One expert suggested that the standard of being "consistent with" provincial policy lies somewhere on a spectrum between "have regard to" and "conform with."

A number of OMB and court decisions have considered the meaning of "shall have regard to," and produced varying interpretations. Although some decision-makers appear to have merely paid lip service to the 1997 PPS under the "shall have regard to" standard, others have interpreted it to mean that provincial policy should be seriously considered, if not absolutely applied.

Areas of settlement

In another important change, the *SCA* adds new provisions to the *Planning Act* concerning appeals of area of settlement boundaries. By removing the right of appeal in such cases, municipalities are now in a stronger position to prevent developers and other private parties from altering settlement area boundaries or creating new ones that the municipalities do not support. This amendment was a response to frustration on the part of municipalities which had to deal with these appeals even after their approved official plans had been developed with a great deal of public consultation. Such appeals have required municipalities to spend a great deal of money and resources in order to defend their official plans before the OMB. This amendment also is directly related to other provincial land use planning initiatives that seek to direct urban growth to the most appropriate areas and curb urban sprawl, such as the *Greenbelt Act* and the *Places to Grow Act*.

Extended time periods

The *SCA* extends the time periods approval authorities have to make decisions on various types of planning applications before an appeal may be made to the OMB. Prior to these amendments, a person or public body could initiate an appeal of many types of pending decisions under the *Planning Act* if no decision on the planning approval had been made after 90 days. The *SCA* increases the period of time allowed to make these decisions, from either 60 or 90 days to 90, 120 or 180 days, depending on the type of planning application.

ECO Comment

The ECO commends MAH for bringing forward these much-needed amendments to the *Planning Act*. The *SCA* has the potential to strengthen the roles of both the provincial government and municipal governments in different aspects of Ontario's land use planning process.

The change in language from "shall have regard to" to "shall be consistent with" should ensure greater consistency with provincial policy. However, there may still be some uncertainty about its application. Decision-makers will inevitably face situations that require them to resolve conflicts between different policies in the 2005 PPS, or between provincial policy and other factors that must be considered. MAH should consider issuing additional guidance as to how these competing interests should be balanced and prioritized by decision-makers.

The amendments allowing the government to declare a provincial interest in an appeal before the OMB and to review the OMB's decision on that appeal should assist the government in circumstances where it believes it must act to protect the public interest from being adversely affected. In making these determinations, it is essential that the government ensure that environmental protection is an important public interest. This reinstatement of a provincial Cabinet's power to overturn decisions of the OMB may also bring increased lobbying pressure on the provincial government from parties who are not successful before the local decision-making body.

Limiting appeals on settlement area boundaries is a reasonable measure to prevent developers and the OMB from successfully changing the settlement area boundaries over the objections of municipalities.

The extension and removal of time periods allowed before appeals to the OMB should give municipalities greater opportunity to ensure that the best decisions are reached in planning applications. These amendments also address concerns that the public has not been given the opportunity to participate fully in the planning process due to the limited time periods for review. The ECO also urges MAH to consider amending the definition of a "complete application" to require that detailed information be provided to municipalities, including supporting documents and technical studies, before municipalities must begin processing an application.

As noted above, almost all of the amendments in the *SCA* have implications for the OMB. Many of the changes made by the *SCA* are intended to address criticisms that have been levelled against the OMB in recent years. Among these criticisms are allegations that the Board has been too favourable to developers in its decisions, that it has not always adequately considered provincial policy, and that its often long, costly hearings have been inaccessible to members of the public unless they can hire lawyers and other experts, which is usually financially prohibitive. Whether or not these criticisms are valid, they have shaped public perception of the OMB. The provincial government has suggested that it plans additional reform to the Board.

In the *SCA*, the legislature appears to be attempting to strike a balance between local autonomy and strong provincial oversight in land use planning. However, the transfer of final decision-making powers from the OMB to municipal councils may be positive when municipalities are progressive in their approaches to land use planning – but potentially problematic when they are not. Similarly, a stronger provincial role in planning raises concerns if the Cabinet is not required to adhere to its own 2005 PPS in making final determinations. In time, as the *SCA* amendments are implemented and applied, it should become clear whether the balance of municipal and provincial land use planning powers is appropriate.

(For a detailed discussion of the *Strong Communities Act*, see the Supplement to this report, pages 152-160.) *(For ministry comments, see page 212.)*

2005 Provincial Policy Statement

The Provincial Policy Statement (PPS) is a key component of Ontario's land use planning system. It provides direction on matters of provincial interest related to land use planning and development, and guides the provincial "policy-led" planning system. The Ministry of Municipal Affairs and Housing has the authority to issue such policy statements under the *Planning Act*.

The stated intent of the PPS is to provide for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural environment. The PPS applies to any land use planning undertaken by a council of a municipality, a local board, a planning board, a minister of the Crown and a ministry, and a commission or agency of the Ontario government.

The new PPS ("2005 PPS") was released in February 2005 as part of the ministry's Planning Reform initiative, and came into effect on March 1, 2005. The review of the PPS, which began at approximately the same time as MAH's "Smart Growth" initiative, took almost four years to complete. The planning reforms were initiated in part because of concerns that the existing planning system was not effectively addressing issues such as urban sprawl, growing congestion on roads and highways, inefficient infrastructure investments, loss of green space and resources, and environmental degradation.

According to MAH, there are several important improvements to the PPS as a result of the revisions. For example, brownfields – former industrial or commercial properties that may be underutilized due to real or perceived contamination – are now explicitly recognized and their redevelopment is encouraged. And the 2005 PPS includes a new emphasis on intensification and minimum densities. MAH expects this new emphasis will encourage denser development patterns in areas well-served by transit. The 2005 PPS also will lead to an increased mix of housing and employment, which can reduce the need for travel and create less traffic congestion. MAH says that these planning components are linked with the PPS's new provisions that support energy efficiency and air quality initiatives by municipalities. The PPS also now recognizes the role of alternative and renewable energy, which shall be permitted in settlement areas, rural areas and prime agricultural areas.

The PPS represents "minimum standards" for planning authorities. It does not prevent decision-makers from exceeding specific parts of the PPS, unless it would result in a conflict with other components of the PPS. However, "provincial plans" – such as the Niagara Escarpment Plan, the Oak Ridges Moraine Conservation Plan, the Greenbelt Plan, and Growth Plans – take precedence over the PPS in case of any conflict.

Interpretation of language

Despite the new "consistent with" standard of the *Planning Act*, the PPS itself uses stronger or weaker language depending on the degree to which planning authorities are required to implement its sections. The ministry states that some parts of the PPS are expressed as positive or required directions by means of "shall." Other parts use enabling or supportive language, which could be interpreted as being completely discretionary, including "should," "promote," "may permit," "consider," and "encourage."

For example, with regard to municipal official plans, which are the primary means of implementing many of these planning reforms, the PPS states that municipalities "shall" identify provincial interests in establishing land use designation and municipal policies. On the other hand, municipalities "should" coordinate cross-boundary issues that involve other planning authorities. And although the PPS states that municipalities "shall" keep their official plans up to date, they are only "encouraged" to develop indicators to monitor its implementation.

What is "development"?

The PPS defines many of the terms that it uses, and these definitions are of crucial importance in determining the application of the various policies. Some definitions contain wording and terminology that diverge from their common meanings. Most important, how "development" is defined has implications for almost every section of the PPS. The 2005 PPS, in part, defines development as "the creation of a new lot, a change in land use, or the construction of buildings and structures, requiring approval under the *Planning Act.*"

Under the 2005 PPS, development is restricted in a number of situations; it is not permitted in significant coastal wetlands, for instance, and it shall be restricted near sensitive surface or groundwater features. However, project approvals that involve infrastructure, such as sewage systems or transportation corridors, are typically approved under other legislation and not bound by the PPS. The term "development" specifically excludes activities that create or maintain infrastructure authorized under an environmental assessment process; works subject to the *Drainage Act*; or the mining of minerals or advanced exploration on mining lands in some areas. "Infrastructure" also includes water systems, sewage treatment systems, waste management systems, electric power generation and transmission, communications and telecommunications, transit and transportation corridors and facilities, oil and gas pipelines and associated facilities.

Similarly, mineral aggregate operations are not considered to be a form of development or site alteration in the PPS. As such, none of the restrictions protecting natural heritage features, such as significant wetlands or significant woodlands, apply.

Clearly, a broad array of activities that would normally be understood as constituting development in a common sense or lay definition of the term are, in fact, not considered to be development for the purposes of the PPS.

Class Environmental Assessments and the PPS

Project approvals that involve infrastructure, such as sewage systems or transportation corridors, may require approval under other legislation. For example, the Ministry of Transportation's Class Environmental Assessment for Provincial Transportation Facilities is the key approval process for planning, designing and building new highways, as well as expansions or alterations of existing provincial roadways (see pages 112-116).

The 2005 PPS essentially defers to such class environmental assessments, as none of its prohibitions or constraints that apply to protecting natural heritage, as well as sensitive surface and groundwater features, include activities involving infrastructure. However, the ECO has raised concerns on numerous occasions, in both the 2003/2004 annual report and this year's annual report, that significant problems exist with respect to the application of such class environmental assessments and the resultant effects on the environment.

Lack of comprehensive planning targets

Planning authorities are not specifically required to establish planning targets, with the exception of new targets for residential growth, serviceable land, and affordable housing. However, the PPS does encourage municipalities "to establish performance indicators to monitor the implementation of the policies in their official plans." The incorporation of quantifiable targets into official plans is recognized by experts as a progressive approach to planning, facilitating both policy and program evaluation by planning authorities. For example, official plans that contain measurable goals for the protection of natural heritage features provide for increased accountability, as well as greater probability of achieving desired outcomes.

The 2005 PPS states that MAH will identify performance indicators for measuring the effectiveness of some or all of the policies. However, as one member of the public noted, the 1997 PPS had a similar stipulation, and "even now, some eight years later, no draft performance indicators have been released for public review." The ECO believes that MAH should begin consultation on these performance indicators in a timely manner, well in advance of the next scheduled revision of the PPS in five years' time.

Proactive versus reactive planning in the PPS

The PPS obligates planning authorities to plan proactively for components such as residential growth, serviceable land, redevelopment, and intensification. Planning authorities also "shall promote economic development and competitiveness" by ensuring a range of employment, providing opportunities for a diversified economic base, protecting employment areas for current and future uses, and ensuring the necessary infrastructure for current and projected needs. The PPS also directs municipalities that "as much of the mineral aggregate resources as is realistically possible shall be made available as close to markets as possible," without requiring the demonstration of need.

However, the PPS takes a selective approach in its requirements for identification and planning. Not only does the PPS not require a municipality to identify natural heritage features, unless they are necessary for the hydrological integrity of the watershed, it also does not obligate a municipality to plan for the creation of a *natural heritage system*. Further, with the exception of speciality crop areas, municipalities are not required to identify prime agricultural lands. In both examples, the PPS does not specify or encourage municipalities to develop supporting policies that ensure that specified targets are met – even though that would constitute sound planning.

Source water protection

The 2005 PPS contains new provisions with regard to water quality, such as requiring planning authorities to identify "surface water features, groundwater features, hydrologic functions and natural heritage features and areas which are necessary for the ecological and hydrological integrity of the watershed." Development and site alteration are now "restricted" to ensure that "these features and their related hydrologic functions will be protected, improved or restored."

These new provisions appear to be a positive step toward source water protection, but the ECO believes that there will likely be challenges before the courts and the OMB as to how to interpret such language. Further, planning authorities also must only give "consideration" to these features for activities such as significant transportation corridors and infrastructure facilities. Additionally, the PPS does not state that aggregate operations are restricted by any of these source water features, only that extraction shall minimize its environmental impacts.

Problems with the inter-ministerial support of the PPS

One of the most troubling features of the 2005 PPS is that several ministries appear reluctant or opposed to taking a *balanced and integrated* role in Ontario's planning system. Many activities, such as highway construction overseen by the Ministry of Transportation or aggregate extraction overseen by the Ministry of Natural Resources, have wide latitude or exemptions in following the rules of the PPS. The Ministry of Public Infrastructure Renewal's Growth Plans also may override the PPS. Additionally, as of May 2005, the Ministry of the Environment has not introduced source water protection legislation that might address some of the weaknesses of the 2005 PPS.

The rights of Ontario residents under the *EBR*, such as the right to comment on environmentally significant proposals or the right to file an application for review, also do not extend to many of the ministries or statutes that directly affect how the PPS is implemented. The Ministry of Finance, including all of its legislation, is not prescribed under the *EBR*. Other environmentally significant pieces of planning-related legislation of prescribed ministries – such as the *Greenbelt Act* and the *Farming and Food Production Protection Act* – also are not prescribed under the *EBR*.

In other instances, supporting policies for the PPS, such as those of the Ontario Ministry of Agriculture and Food, never received public consultation on the Environmental Registry. While some of the policies that support the PPS were consulted on, such as those of the Ministry of Northern Development and Mines, it is unclear whether they are actually in effect. Most alarming is the fact that the projections for growth that drive the entire system are not considered as policies or worthy of public consultation by the Ministry of Finance. (See pages 46-47, Limits to Growth?)

ECO Comment

The importance of the PPS cannot be overstated. It is the collection of quasi-rules that underpins Ontario's approach to planning. They guide the practice of planning, literally shaping the landscape of the province. They also serve to reflect the priorities and values of the Ontario government.

According to the Ministry of Municipal Affairs and Housing, the initiatives of the 2005 PPS "will provide an overall planning framework for Ontario that will help to create strong, sustainable communities, a strong economy, and will help to protect our environment and resources." The policy changes are intended to achieve several government commitments, including refining the planning system, defining an urban and natural structure, aligning infrastructure, and providing a stronger "green" focus.

The ministry also clearly states that there is "no implied priority" in the order in which the topic areas appear within the PPS. However, it is evident that some land uses are given clear priority over others. The 2005 PPS and the various laws that shape how it is implemented unequivocally establish priorities.

Environmental planning and protection – natural areas, wild species and water quality – are not given the same importance as economic drivers. This fact is not new, but, rather, indicates that minimal progress has been made.

Municipalities must now actively plan for residential and commercial growth and set aside sufficient lands in order to meet rigid growth targets. The 2005 PPS weaves in and facilitates the supporting mechanisms for this burgeoning growth, by granting special exemptions for infrastructure such as roads and corridors for electrical powerlines. The entire planning system presupposes this growth and has been explicitly designed for it. From a strictly traditional economic perspective, this approach might be sound.

From an ecological or sustainability perspective, this planning approach will fail in the long term. Few of the critical elements of the natural environment – significant woodlands, wetlands, valleylands, species, sensitive water features – are adequately protected. In fact, virtually none of them are protected from über-development activities such as aggregate extraction or highway construction. Natural features are often treated simply as end-stage checks on development. Many natural features do not even have to be identified or comprehensively planned for by municipalities.

The approach taken by the PPS often forces the defence of environmental interests on a case-by-case, woodlot-by-woodlot, and wetland-by-wetland basis. The ECO has raised similar concerns in the past, recommending in our 2000/2001 annual report that "MAH and other ministries consider, as part of the five-year review of the Provincial Policy Statement, the need for clearer provincial requirements for municipalities regarding the protection of environmentally significant lands."

Supporters of natural heritage often bear the burden of proving the ecological significance of such areas, and they must often justify their protection on the grounds that they provide "environmental services." Rather, the onus – starting at the very onset of the planning process – should be placed on the development pressures themselves to justify need. Taking such an ecologically sensible approach might require that individual development activities demonstrate their own "significance" and societal need to merit intrusion on a natural heritage system.

Many municipalities simply do not have the resources or capacity to cope with development pressures and, perhaps, direct growth toward a steady-state. Nor is it necessarily in their financial interests to curb growth, since residential and commercial growth contributes to an increasing taxation base. At times, in fact, a confrontational system can even be created when a local municipality advocates a particular development activity, but the local Conservation Authority – funded by that same municipality – is left to oppose it on environmental grounds.

This "development-first, environment-second" approach to planning has spawned a confusing mix of legislation and provincial plans. Rather than viewing an ecological feature, such as a provincially significant wetland, as being important enough to protect no matter where it is situated in the province, the PPS necessitates that separate rules be created depending on its location. The result is that the same type of natural area will receive different treatment depending on whether it lies on specific parts of the Niagara Escarpment, in the Greenbelt, on the Oak Ridges Moraine, in southern Ontario or in northern Ontario. A planning system that uses the PPS to be "complemented by provincial plans or locally-generated policies" ensures that inconsistent consideration, at best, will be given to the environment. The ECO believes that the natural environment must be treated as an integrated system and, at a minimum, given at least equal weight to other planning considerations.

(Interested readers should refer to the Supplement to this annual report for a detailed review of the PPS. Due to its wide scope, the ECO has focused on selected aspects of the PPS.) *(For ministry comments, see pages 212-213.)*

Limits to Growth?

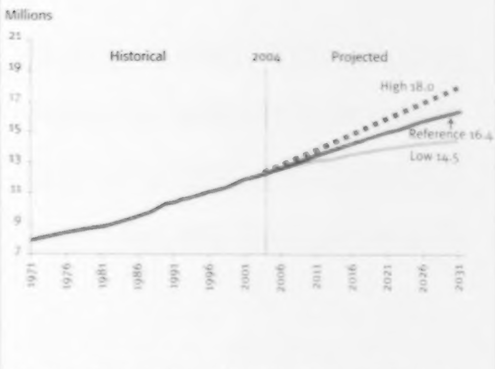
The issue of future population growth is an enormously significant public policy choice that has received little debate. The current planning system operates on the assumption that the population of communities will increase. The PPS does encourage intensification and redevelopment, in addition to limiting the consideration of the expansion or creation of new settlement areas only during the time of comprehensive municipal plan review. However, the underlying assumption of the PPS – in tandem with "growth plans" under the proposed *Places to Grow Act* – is that Ontario's population should increase and that that is a sound policy choice.

To meet the needs of current and future residents, the PPS states that "planning authorities shall… maintain at all times the ability to accommodate residential growth for a minimum of 10 years" and "land with servicing capacity sufficient to provide at least a 3 year supply of residential units." Further, the PPS directs that "sufficient land shall be made available… to accommodate an appropriate range and mix of employment opportunities, housing and other land uses to meet projected needs for a time horizon of up to 20 years." According to MAH, this capacity will be based on population growth numbers that are established by upper-tier municipalities. In turn, the upper-tier municipalities generate their numbers based on population modelling done by the Ontario government.

The Ministry of Finance produces detailed population projections for Ontario for the 30-year period following every national census. Statistics Canada conducts national censuses every five years. MOF states that "these population projections do not represent Ontario Government policy targets or desired population outcomes; nor do they incorporate explicit economic assumptions. The projections are developed to provide to Ontario ministries, municipalities and other interested users an outlook of population growth for Ontario. . . . The Ministry's demographic assumptions for growth reflect past trends in all streams of migration and the continuing evolution of long-term fertility and mortality patterns."

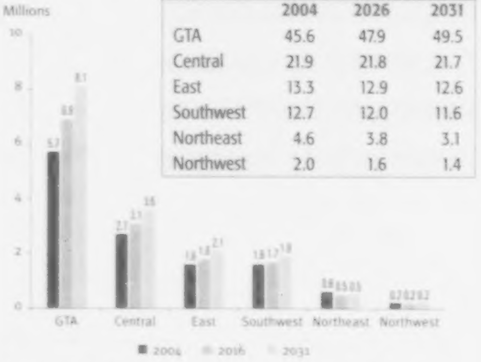
While MOF may take the position that their population models do not constitute policy targets, they are in fact being used as such by other ministries and, by extension, municipalities. The PPS has clearly been designed to incorporate the assumptions and expectations of these population models. More importantly, the PPS obligates individual municipalities to plan for this growth without giving them the ability to develop plans based on minimal or no growth options. For example, it is not by coincidence that Bill 136 is literally entitled the *Places to Grow Act*. To a degree, this issue does go beyond the powers of the Ontario government as it is the federal government that regulates immigration to Canada.

Population Projection, Ontario



Sources: Statistics Canada, 1971-2004, and Ontario Ministry of Finance projections.

Projected Population, Ontario Regions 2004, 2016 and 2031



Share of Ontario Population (%)	2004	2026	2031
GTA	45.6	47.9	49.5
Central	21.9	21.8	21.7
East	13.3	12.9	12.6
Southwest	12.7	12.0	11.6
Northeast	4.6	3.8	3.1
Northwest	2.0	1.6	1.4

Sources: Statistics Canada, 2004, and Ontario Ministry of Finance projections.

The fallacy of this approach to planning is that the more the Ministry of Finance predicts certain regions in Ontario will grow in population size, the more municipalities are forced to plan for these increases without being able to set limits to growth. Further, under the *Places to Grow Act*, MPIR's growth plans are binding and municipalities may not appeal them. These policy-driven growth pressures do make the Greenbelt Plan all that more important, as settlement areas outside the Greenbelt are not permitted to expand into it, unless its boundaries are altered during a 10-year review.

This begs a larger question: to what degree can certain regions in Ontario, especially southern Ontario, sustain and assimilate this relatively unchecked growth? Unchecked growth affects not only a myriad of environmental issues, but can also shape the character of Ontario irrevocably. Moreover, many areas with infrastructure in northern and rural Ontario are in fact experiencing depopulation. The ECO also notes that neither the Ministry of Finance nor the Ministry of Public Infrastructure Renewal are prescribed ministries under the EBR despite the fact that they clearly have environmentally significant roles to play in Ontario's land use planning system.

Recommendation 3

The ECO recommends that MAH undertake public consultation on the government's population growth modeling and projections in order to provide a transparent context for land use planning decisions.

The *Greenbelt Act, 2005*, and the Greenbelt Plan

The Greater Golden Horseshoe area is one of the fastest growing regions in North America, with the province projecting that another 4 million people will settle in the area before 2031. For decades, urban development has promoted inefficient land use patterns that have devoured significant amounts of southern Ontario's agricultural lands and natural areas. Sprawl development continues to threaten the remaining lands and has generated political and economic pressures on the provincial government to assume a leadership role, after an extended reluctance to intervene, in coordinating regional and provincial-level planning in the Greater Golden Horseshoe.

The *Greenbelt Act, 2005*

During the 2003 provincial election, the government committed to creating a greenbelt area in the Greater Golden Horseshoe. Right after the election, in December 2003, the government introduced Bill 27, the *Greenbelt Protection Act, 2003*, to designate a Greenbelt study area and place a one-year moratorium on development in the study area. A Greenbelt Task Force conducted public consultation and made recommendations that led to the introduction of the *Greenbelt Act, 2005*, which was enacted in February 2005 but applies retroactively to December 2004.

The Act provides the authority to establish a Greenbelt Plan (GBP), provides for local official plan conformity, and establishes a Greenbelt Council to advise the Minister of Municipal Affairs and Housing. The *Greenbelt Act* gives the government authority to protect a greenbelt of agricultural and environmentally sensitive land in the Golden Horseshoe from urban sprawl. This "Protected Countryside" is subject to the requirements of the Greenbelt Plan. The greenbelt area also includes the Oak Ridges Moraine and the Niagara Escarpment areas.

The Act sets out numerous objectives for the GBP, including:

- establishing a network of countryside and open space areas that supports the Oak Ridges Moraine and the Niagara Escarpment.
- sustaining the countryside, rural and small towns and contributing to the economic viability of farming communities.
- preserving agricultural land as a continuing commercial source of food and employment.
- providing protection to the land base needed to maintain, restore and improve the ecological and hydrological functions of the Protected Countryside.
- providing open space and recreational, tourism and cultural heritage opportunities to support the social needs of a rapidly expanding and increasingly urbanized population.

Though the *Greenbelt Act* preserves land around and in the Oak Ridges Moraine and Niagara Escarpment areas, it does not revoke or replace the *Oak Ridges Moraine Conservation Act (ORMCA)* or the *Niagara Escarpment Planning and Development Act (NEPDA)*, the existing laws which protect those areas. This raises the question of which of these land use planning regimes should take precedence in the case of a conflict. The *Greenbelt Act* deals with this issue by providing that the Oak Ridges Moraine Conservation Plan (ORMCP) and Niagara Escarpment Plan (NEP) prevail over the GBP in their areas of application. However, the Act also allows Cabinet to make regulations to override anything in the ORMCP or the NEP if necessary for the operation of the GBP. It seems likely that conflicts will be resolved on an issue-by-issue basis.

MAH has stated that the *Greenbelt Act* contemplates that the less environmentally protective plan will be brought up to the standard of the more environmentally protective plan, but this is not stated explicitly in the Act. Thus, it is possible that the reverse may occur in some circumstances and the provisions of one plan may be weakened by the application of another.

The GBP also prevails where there is a conflict with an official plan, zoning bylaw or the 2005 Provincial Policy Statement. Municipal councils and planning authorities located in any of the areas designated as Protected Countryside must amend every official plan to conform with the GBP.

In contrast to the *ORMCA*, which provided that the ORMCP be established by minister's regulation, the *Greenbelt Act* specifically provides that the GBP is not to be established by regulation. This means that the GBP has the status of a policy, and is not legally enforceable as a regulation in the same way as the ORMCP. The *ORMCA* contains offence provisions with penalties applying to anyone who contravenes a prohibition or fails to comply with a restriction in the ORMCP, or fails to comply with an order under the *ORMCA*. The *Greenbelt Act*, however, includes no offence provisions, consistent with the status of the GBP as a policy.

A review of the Greenbelt Plan must be carried out every 10 years in conjunction with reviews of the Oak Ridges Moraine Conservation Plan and the Niagara Escarpment Plan. The Act requires the minister to consult with affected public bodies, including the Ministry of Natural Resources, the Niagara Escarpment Commission, the Greenbelt Council established under the *Greenbelt Act*, and municipalities. The Act also requires the minister to ensure that the public is given an opportunity to participate in the 10-year review. In addition, the Minister of Municipal Affairs and Housing may propose amendments to the areas designated as Protected Countryside in the GBP at any time and undertake consultation on these amendments.

The *Greenbelt Act* is an important piece of legislation and contains the potential to protect agricultural lands and environmentally sensitive areas in the Greater Golden Horseshoe from continued urban sprawl. However, the effectiveness of the Act is largely dependent on the details of the Greenbelt Plan, discussed below.

(For further details about the *Greenbelt Act*, see the Supplement to this report, pages 117-135.)

Key features of the Greenbelt Plan

The Greenbelt encompasses more than 328,000 hectares of lands already subject to the requirements of the Niagara Escarpment Plan and the Oak Ridges Moraine Conservation Plan, as well as a newly added 400,000 hectares of land described as "Protected Countryside" which is subject to the *Greenbelt Act* and Greenbelt Plan. The combined total area of the Greenbelt is approximately 728,000 hectares.

The Protected Countryside (PC), with the exception of settlement areas (land within the Greenbelt designated for urban uses), includes three basic land use designations, all rooted in agricultural uses: specialty crop areas, prime agricultural lands, and rural lands. Over two-thirds of the PC is designated for agricultural use, with approximately 11 per cent of the overall area designated as specialty crop areas, and 57 per cent as prime agricultural land. Specialty crop areas are offered the greatest protection, with no expansions of settlement areas (land designated for urban uses) allowed into these areas, and no new non-agricultural uses permitted. Prime agricultural areas are not protected from settlement area expansions, which are permitted at the 10-year review subject to conditions, but these areas are protected from other new non-agricultural uses. Rural lands make up approximately 17 per cent of the PC area. Within areas designated rural, a wide range of institutional, commercial, and recreational uses are permitted. Throughout the Protected Countryside, residential lot severances are strictly controlled and the development of adult lifestyle and retirement communities is prohibited. Further, the Plan prohibits the expansion of settlement areas located outside the PC into the PC. The remaining 15 per cent of the PC is occupied by existing settlement areas, within which land uses are governed by municipal plans and related programs.

Layered over the three basic land use designations is a Natural Heritage System (NHS) that covers approximately 53 per cent of the Protected Countryside and includes 85 per cent of its key natural heritage features. Within the NHS, enhanced protections are provided for key natural heritage and hydrologic features, including policies setting out restrictions and requirements for any development or site alteration near these features or their protection zones. Outside the NHS and within the PC, the policies of the 2005 Provincial Policy Statement (PPS) guide the protection of key natural heritage features, but the list of key features protected under the PPS is not as comprehensive as those protected under the Natural Heritage System. (For a review of the 2005 PPS, see pages 39-47.) Key hydrologic features are protected by NHS policies throughout the PC.

Infrastructure – including water and wastewater treatment systems, waste management systems, and transportation facilities and corridors – is permitted throughout the Protected Countryside, including within key natural heritage features if the need can be demonstrated and there are no feasible alternative locations. New mineral aggregate operations can be established, without justifying need, throughout the PC except within certain key natural heritage features within the Natural Heritage System. New or expanded mineral aggregate operations within the NHS are subject to enhanced site rehabilitation requirements as set out in the Greenbelt Plan. Any such operations within the PC but outside of the NHS are subject to a more limited list of enhanced rehabilitation requirements.

The Greenbelt Plan permits renewable resource activities, including forestry, water taking, fisheries, conservation, and wildlife management activities, throughout the PC, including within key natural heritage features. Recreational uses, including major uses such as ski hills, golf courses, and campgrounds, are also permitted within rural areas of the PC, subject to conditions. Within the Natural Heritage System, proposals for major recreational facilities require additional planning to minimize water, nutrient and biocide use.

Affected municipalities must bring their official plans into conformity with the Greenbelt Plan no later than the time of the required official plan five-year review, or by the date specified by the minister. Municipalities are free to enact stricter requirements than those set out in the Plan, if they do not conflict with it. However, they cannot enact stricter policies to regulate agricultural uses or mineral aggregate operations.

Comparative Analysis: Land Use Policies and Designations in Most Stringently Protected Natural Area Categories in Three Land Use Plans (GBP, NEP and ORMCP)

Existing or Proposed Land Use	Greenbelt Plan Natural Heritage System (Policy Overlay)	Niagara Escarpment Plan Escarpment Natural Area (Land Use Designation)	Oak Ridges Moraine Conservation Plan Natural Core Areas (Land Use Designation)
New mineral aggregate extraction operations	YES* (except in significant wetlands, significant woodlands, and significant habitat of endangered species & threatened species)	NO	NO
Expansion of existing mineral aggregate extraction operations	YES*	YES* (only limited expansion of existing sandstone quarries permitted)	NO (not beyond boundary of area under license or permit)
Major recreational uses (e.g., ski hills, golf courses, serviced camp grounds)	YES*	NO (only low intensity recreational uses permitted)	NO (only low intensity recreational uses permitted)
New waste management facilities (e.g., landfills, incinerators)	YES*	NO	NO
Transportation infrastructure (e.g., public highways)	YES*	YES*	YES
Human Settlement Area expansions	NO	NO	NO
Agricultural uses (existing and new)	YES*	YES* (existing operations permitted but no new operations permitted)	YES*
Water taking	YES*	YES*	YES*
Forest Management (including wood harvesting)	YES*	YES*	YES*

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* Where uses are permitted, these uses may be subject to requirements contained in each of the plans. Interested readers should consult each plan to learn about any requirements.

Plan implications and implementation

The Plan's approach to the protection of key natural heritage features is subtly but significantly different from the approach used in both the Niagara Escarpment Plan and the Oak Ridges Moraine Conservation Plan. These latter plans are driven by land use designations, with the goal of protecting natural heritage systems. The Greenbelt Plan, in contrast, is driven by land use designations with the goals of protecting agricultural lands and conserving rural lands. The Natural Heritage System, with its enhanced policies for the protection of natural heritage features, is layered on top of these land use designations. Some experts criticize this features-focused approach, since competing interests can emerge when natural heritage policies are applied as an overlay onto areas where other land uses are permitted. The table, Comparative Analysis (page 51), compares the approaches of the NEP, the ORMCP, and the GBP, showing that MAH's claim that the Greenbelt Plan confers permanent protection on natural heritage systems is overstated.

The Greenbelt Plan does contain strong policies to protect agricultural lands from urban sprawl. The most significant of these policies is the restriction on the expansion of settlement areas located outside the Protected Countryside into the PC. This makes the Plan a critical component of provincial efforts to curb sprawl development in the Greater Golden Horseshoe – thereby protecting agricultural lands and natural heritage, and encouraging efficient land use. The policies of the Plan are meant to work in tandem with growth management strategies emerging out of growth plans mandated by the *Places to Grow Act* (see page 53).

The Greenbelt Plan also requires that a Greenbelt Council be established whose duties include tracking the success of Plan implementation, identifying issues emerging from implementation, and advising on the development of Greenbelt Plan performance measures. Performance measures are to be established through MAH's Municipal Performance Measurement Program.

The role of the province in Plan implementation appears to be very limited, apart from the Greenbelt Council. Municipalities are charged with designating prime agricultural and rural lands, and identifying and delineating the boundaries of key natural heritage features, with minimal and sometimes no guidance from the province. This has generated concern among stakeholders – including municipalities – regarding the potential for inconsistent Plan implementation across the Protected Countryside and the lack of resources and expertise at the municipal level to take on these implementation responsibilities. Further, while the Plan sets out a process for monitoring the success of implementation through performance measures, it is unclear who will ultimately assume responsibility for steering this process.

Places to Grow Act and the Draft Growth Plan for the Greater Golden Horseshoe

The *Places to Grow Act* provides the province with the legal and policy framework required to prepare growth plans for any area of Ontario, and to amend these plans as required. The Act and its first growth plan – the Draft Growth Plan for the Greater Golden Horseshoe – are deemed to be critical to the success of the *Greenbelt Act* and Greenbelt Plan. This is because the goal of preserving outlying natural, rural, and agricultural lands is inextricably linked to the need to formulate and implement plans to direct, control and transform the nature of urban growth in southern Ontario.

Details of how growth management will be pursued in the Greater Golden Horseshoe are set out in the Draft Greater Golden Horseshoe Growth Plan. The plan is guided by the province's desire to plan and manage growth in a manner that supports a strong and competitive economy, protects the natural environment and agricultural lands, optimizes the use of existing and new infrastructure, and enhances quality of life in communities throughout the region. These goals will be achieved through the promotion of intensification and re-urbanization, including brownfield redevelopment, wherever possible.

The plan establishes overarching growth management policies and goals that will be implemented via five sub-area growth management plans to be developed cooperatively by the province and the municipalities. While there will be flexibility for municipalities to meet specific local needs through the sub-area plans, they will also be required to conform to the higher level requirements of the provincial growth plan, including the following key policy directions and goals:

- Direct growth to built up areas within the Greater Golden Horseshoe by establishing urban growth centres and intensification corridors.
- Establish development intensification targets within identified urban growth centres and intensification corridors (the proposed goal is not less than 200 residents and jobs per hectare.)
- Establish residential and employment density requirements within areas designated for future growth in order to support public transit and promote mixed use development (the proposed goals are 40 and 50 residents and jobs per hectare within designated growth areas, depending on where the designated growth area is located within the Greater Golden Horseshoe.)
- Establish the requirement that a sub-area growth strategy – including plans for intensification – must be completed prior to a municipality considering any urban boundary expansion.
- Make transit the first priority for infrastructure investment.

ECO Comment

In the ECO's opinion, the policies designed to protect the Greenbelt's natural features and functions, while stronger than the protections offered by the 2005 Provincial Policy Statement, are not suitably protective in the long term for a greenbelt area. The ECO is concerned about the uses that the Plan permits across the Protected Countryside and, in some instances, near or within key natural features. The ECO believes natural heritage policies should be at least as strong as those in the Niagara Escarpment Plan and Oak Ridges Moraine Conservation Plan. Introducing consistency across these plans would also eliminate the complexities and confusion that arise when multiple plans with differing policies apply to lands in such close proximity.

The Greenbelt Plan also fails to challenge status quo approaches to transportation – as demonstrated through Plan policies permitting highways and aggregate extraction operations in most of the Protected Countryside, thereby compromising the Plan's expressed goal of offering protection to natural heritage, water resource systems, and agricultural lands. The ECO believes this fundamental weakness of the Plan could lead to transportation corridors that generate additional growth pressures that would threaten the PC and beyond.

The ECO applauds the Plan's strong policies aimed at preventing the expansion of urban communities into the PC, but remains concerned that settlement areas within the PC can expand into prime agricultural land. Further, the ECO encourages the government to pursue the development of a much-needed sustainable agriculture policy by working with farmers, consumers, and other stakeholders.

The ECO is also pleased that the *Places to Grow Act* received Royal Assent in June of 2005, and that the first regulation under the Act designating the Greater Golden Horseshoe as a growth plan area has been filed. Growth planning is a necessary counterbalance to the Greenbelt Plan that must not be delayed, and the ECO looks forward to the prompt finalization of the proposed Growth Plan for the Greater Golden Horseshoe area.

The ECO commends the government for committing to the establishment of a Greenbelt Council to monitor and evaluate the success of the Plan's implementation. However, the ECO urges the government to assume a larger role in its implementation by providing clear guidelines and direction to municipalities and other agencies that will play a part in Plan implementation. The provision of provincial resources in the form of staff expertise and funding would also facilitate Plan implementation.

The *Greenbelt Act* and Plan represent important elements in a larger provincial effort to begin to promote sustainable land use in southern Ontario. However, all of these initiatives operate on the assumption that current growth patterns in the Greater Golden Horseshoe area are inevitable and desirable. The ECO believes these assumptions need to be explored further, and consideration given to concepts such as "carrying capacity," "ecological footprint," and "limits to growth."

The ECO will monitor the implementation of the *Greenbelt Act* and Plan and provide updates in future reports. *(For ministry comments, see page 213.)*

Update: MOE's Plans to Control Industrial Air Emissions

The Ministry of the Environment faces the daunting task of strengthening controls on air emissions of thousands of industrial facilities across Ontario. Although most facilities do have existing certificates of approval (Cs of A) for air emissions, they may not be providing adequate environmental protection because they are based on a very outdated regulatory framework. This old framework relies on air standards that are in some cases over 25 years old and on seriously dated air dispersion computer models that are over 30 years old.

MOE's challenge has been to develop policy mechanisms that give industry a relatively smooth, transparent transition from the status quo to compliance with its proposed new air standards and current air dispersion models. The new air standards are in some cases going to be as much as one hundred times more stringent. Moreover, the new, more accurate air dispersion models will be predicting significantly higher concentrations of contaminants at property lines under certain meteorological and site conditions. Thus, it is expected that many existing facilities will find themselves out of compliance with the new rules, even if their actual emissions are unchanged. To begin to comply, facilities will have to upgrade their pollution control equipment, change their production methods, or employ pollution prevention techniques – or some combined approach. Such changes require planning, the hiring of consultants, financing, installation and testing, and, above all, considerable time.

MOE's solution is the risk-based plan outlined in the Guideline for the Implementation of Air Standards in Ontario (the Guideline). This concept has been modified and embellished several times since 2001, but the essence remains a phase-in plan for the new rules and the opportunity for facilities to apply for regulatory relief on a case-by-case basis if their predictions show they will not be able to meet the new rules by the phase-in deadlines. A draft version of the Guideline (though not the most recent one) was posted on the Registry as a proposal in June 2004 (PA04E0010). To keep key stakeholders updated on the ministry's evolving thinking about the Guideline, MOE hosted several public full-day information sessions in Toronto in September 2004 and April 2005. These well-attended meetings allowed the ministry to describe the policy adjustments being contemplated, to answer questions and to receive immediate feedback.

At the April 2005 information session, MOE staff outlined stakeholder comments and how they had influenced the ministry's newest proposed elements of the Guideline and proposed regulation. While MOE received support for its general direction and for reasonable phase-in periods for standards and models, there was industry concern that the initiative would further bog down the ministry's approvals process. There was also a concern that the consulting community would not be able to cope with the technical complexity of the Guideline within the proposed time frames. Some stakeholders asserted that odour should not be treated as the basis for an air standard. While industry believed that the ministry's choices of trigger points were too stringent, environmental groups argued that they were not stringent enough. To deal with such issues, MOE proposed a staggered introduction of the new rules and a number of other changes:

- Air emission sources would be divided into three groups of sectors, with Group 1 becoming subject to new rules by 2010. Group 2 would be subject by 2013, and the remainder of Ontario facilities would be targeted by 2020. Risk factors (such as health risks of emitted contaminants and the likelihood and magnitude of exceedances) were used to assign sectors into each group.
- Group 1 would include metal ore mining, fossil fuel power plants, petroleum refining, basic chemical manufacturers, resin, synthetic rubber and fibre and filament manufacturers, iron and steel mills and ferrous alloy manufacturing, non-ferrous smelting and refining (except aluminum) and foundries.
- Group 2 would include pulp, paper and paperboard mills, other petroleum and coal products manufacturing, chemical manufacturing, urethane and miscellaneous foam product manufacturing, other non-metallic mineral product manufacturing, primary metal manufacturing, fabricated metal product manufacturing, transportation equipment manufacturing, waste treatment and disposal.
- After 2010, MOE would have the authority to require new models to be used for facilities in **other** sectors.
- Facilities affected by the tougher new standards or the improved dispersion models could seek regulatory relief by applying for an "alternative standard."
- Any facility applying for an "alternative standard" would have to use the new dispersion models to predict concentrations of contaminants, and submit an Emission Summary and Dispersion Modelling (ESDM) Report, a Technology Benchmarking Report, an Action Plan with Schedule on how to implement methods, and a summary of pre-submission consultation with local stakeholders, including residents.

- MOE would decide whether an "alternative standard" should be granted to a facility, based on the frequency and nature of the exceedences (e.g., carcinogens or non-carcinogens), the proximity of sensitive populations (e.g, nearby childcare facilities), etc.
- To improve odour management, MOE released Proposed Revisions to Odour-Based Ambient Air-Quality Criteria and Development of an Odour Policy Framework in April 2005 (PA05E0007).
- MOE predicted that by 2013, over 1,000 facilities would be required to maintain compliance records on-site, although some industry representatives believe the number could be as high as 10,000.

At its April 2005 public information session, the ministry stated its intention to finalize the Guideline and new dispersion models quickly through amendments to Regulation 346 R.R.O.,1990, and encouraged stakeholders to submit written comments promptly, ideally by early May. While industry representatives noted with appreciation the substantive good-faith consultations that MOE had led on the topic thus far, they also requested another comment opportunity through the Registry. In early May, MOE responded to this request by posting a proposal to revoke and replace Regulation 346, with a 30-day comment period. In late June 2005, MOE revised the regulatory framework as promised, by finalizing O. Reg. 419/05. However, decisions on related Registry proposals had not yet been posted on the Registry as of July 26, 2005.

The ECO's 2003/2004 annual report (page 59) encouraged MOE to move quickly to update its regulatory framework for industrial air emissions. The ministry's previous attempt to overhaul Regulation 346 R.R.O., 1990, extended from 1987 to 1990, and eventually floundered. The ministry has been labouring on this latest effort since at least 2001, as reflected by at least five inter-connected policy proposals on the Registry (see the following chart). It was important that stakeholder comments were solicited and considered on this initiative, given the significant implications for many industrial sectors. But the regulated sectors also have a need for certain and predictable rules to allow them to set priorities and plan investments over the next five to 10 years. Most important, Ontario's environment urgently needs reductions in industrial air-borne emissions of carcinogens like chloroform and acrylonitrile, metals such as arsenic, cadmium, chromium and nickel, and numerous other problematic contaminants – reductions that cannot be achieved until this initiative is put in place. The ECO commends MOE for finalizing the regulatory amendments, and expects to review them in our 2005/2006 annual report. *(For ministry comments, see pages 213-214.)*

Air Policy Issues: MOE's Recent Use of the Environmental Registry

Registry number	Proposal Title	Date proposal posted	Decision posted as of July 26/05?	Comment period
PA01E0002	A Proposed Risk Management Framework for the Air Standard Setting Process in Ontario	March 20, 2001	no	150-day comment period
PA01E0003	Updating Ontario's Air Dispersion Models	March 20, 2001	no	120-day comment period
PA04E0009	Air Dispersion Modelling Guideline for Ontario (ADMGO)	June 21, 2004	no	120-day comment period
PA04E0010	Guideline for the Implementation of Air Standards in Ontario (GIASO)	June 21, 2004	no	120-day comment period
PA04E0011	Updating Ontario's Regulatory Framework for Local Air Quality	June 21, 2004	no	120-day comment period
PA02E0031	Ontario's Industry Emissions Reduction Plan: Proposals for a Nitrogen Oxides and Sulphur Dioxide Regulation	June 21, 2004	Feb. 11, 2005	60-day comment period (31 comments received) N.B. ECO will review once RA05E0002 is finalized.
RA05E0002	Draft Regulation – Industry Emissions – Nitrogen Oxides and Sulphur Dioxide	Feb. 10, 2005	no	30-day comment period
PA05E0009	Guideline for Emission Summary and Dispersion Modelling (ESDM) Reports	April 5, 2005	no	30-day comment period
PA05E0007	Proposed Revisions to Odour-based Ambient Air Quality Criteria and Development of an Odour Policy Framework	April 5, 2005	no	60-day comment period
RA05E0008	Regulation to Revoke and Replace Ontario Regulation 346 – General Air Pollution and Amendment to Ontario Regulation 681/94	May 5, 2005	no	30-day comment period

Update: Climate Change

For nearly 20 years, scientists, governments, industry and citizens around the world have been considering ways to reduce the buildup of greenhouse gases in the atmosphere, a phenomenon likely to lead to dangerous interference in the earth's climatic, atmospheric and oceanic circulation patterns – otherwise known as climate change. In 2005, the Kyoto Protocol, under the United Nations Framework Convention on Climate Change, came into force, and the need for clarity about a plan of action became more pressing for many countries, including Canada. Accordingly, the ECO requested an update from various provincial ministries about their recent work on the climate change issue.

Ministry of the Environment

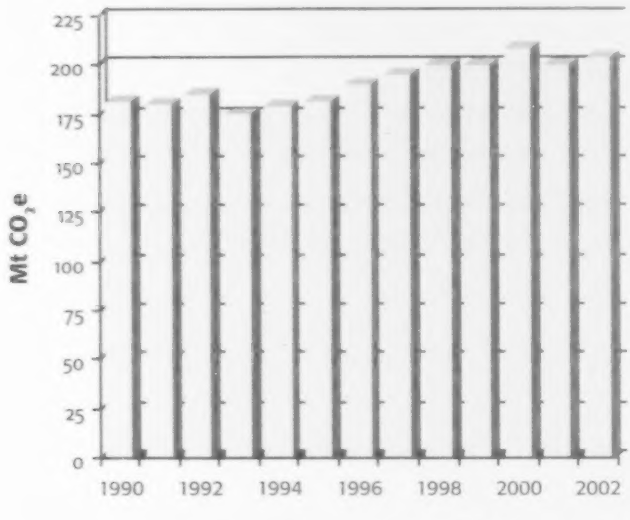
On February 16, 2005, MOE issued a media release saying the Ontario government was taking actions to reduce greenhouse gas (GHG) emissions to help Canada meet its targets. They include:

- replacing coal-fired generation with cleaner sources of power. The Lakeview Generating Station will cease burning coal by the end of April 2005 (other coal-fired stations are slated to close by 2007).
- issuing a Request for Proposals (RFP) for 2500 megawatts of clean energy supply and almost 400 megawatts of new renewable supply.
- working to reduce electricity demand across the province by 5 per cent by 2007.
- releasing its five-point action plan to reduce industrial emissions of smog-causing pollutants and GHGs.
- signing a May 2004 agreement with the federal government that gets the steel sector to act on climate change and that forms a new partnership to educate the public on the issues of climate change.
- requiring gasoline sold in Ontario to contain an average of 5 per cent ethanol by 2007.

MOE staff subsequently advised ECO staff that the items noted in the February media release could be considered a partial list, i.e., that other items such as hydroelectric development and conservation tillage (a means of reducing carbon loss from soils) could be included as well. MOE also told the ECO that it is the lead ministry and is coordinating a climate change response provincially. To do this, MOE indicated, there are various informal networks of ministry representatives, and deputy ministers from various ministries meet on an as-needed basis. Another network, called the Climate Change Directors Group, includes about 13 senior managers from various ministries and meets on an ad hoc basis. Finally, environment and resource ministers from all the provinces and territories are involved in environmental issues, including climate change, through a federally coordinated body called the Canadian Council of Ministers of the Environment.

MOE holds the position that the province is not obliged in a regulatory sense to fulfil any commitments under the Framework Convention on Climate Change or the Kyoto Protocol. Canada is a party to these agreements and therefore holds responsibility for the commitments it makes. Ontario, however, supports ratification of the Protocol and will help Canada meet its obligations.

Ontario's greenhouse gas emissions 1990-2002



Ontario's Total GHG Emissions

Under the Kyoto Protocol, Canada has committed to reduce its greenhouse gas emissions to an average 6 per cent below 1990 levels during the period 2008 to 2012. This means an emissions reduction of roughly 240 million tonnes (Mt) of carbon dioxide equivalent (CO_2e) will be needed, based on a 2002 federal assessment. Under the projected "business as usual" path, Canada's GHG emissions would reach 808 Mt CO_2e in 2010, according to this same assessment. To be in compliance with the Kyoto Protocol, Canada needs to reduce its emissions to 571 Mt CO_2e for that year. More recent figures suggest the gap could be as high as 300 Mt. (The term "equivalent" is used since greenhouse gases have different global warming potentials (GWP), and therefore emissions are often converted to their equivalent in carbon dioxide, which has been assigned a GWP value of 1.)

MOE believes that the closure of Ontario's coal-fired generating stations could yield an emission reduction of as much as 35-40 Mt. MOE notes that it can be hard to estimate actual reductions because assumptions need to be made about what will replace the coal-fired electricity generation, e.g., wind power, natural gas, or some blend. MOE attempts to forecast the outcome of its policies – for instance, closing the coal-fired stations – to the best of its ability, before such program decisions are made. MOE also approaches air emissions reduction initiatives from the standpoint of a "multi-pollutant approach," meaning that any potential initiatives are analysed according to the multiple benefits that could be delivered for a host of pollution problems (e.g., smog, ozone depletion, etc.), not simply for one environmental issue such as climate change.

MOE told the ECO that it has not yet set any specific dates or milestones in the near future relating to Ontario's climate change performance other than the dates and timeframes specified for each individual initiative (e.g., coal station closure, ethanol in gasoline, etc.). The province has not set a specific overall emission reduction target.

Other ministries

The Ministry of Energy reported much of the same information communicated to ECO staff by MOE. ENG put an emphasis on the work that is under way to procure new electricity generating capacity from renewable energy sources like wind turbines and hydroelectric installations.

The ECO also contacted staff at the Management Board Secretariat, since this ministry often creates protocols and coordinates policy for provincial ministries. MBS reported that it is currently focused on meeting the goal of a 10 per cent reduction in electricity consumption by Ontario government operations by 2007, an initiative that should result in some level of GHG emission reduction (see also pages 185-190). Provincial ministries were also awaiting details about funding for energy efficiency projects announced in the 2005/2006 federal budget.

The ECO is also aware that other ministries, such as Natural Resources and Municipal Affairs and Housing, have initiatives under way that promote renewable energy such as wind power, and that these initiatives may have greenhouse gas reduction effects.

Summary

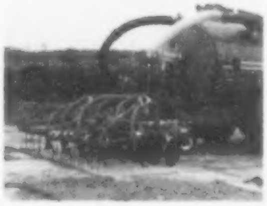
Based on this review, the ECO feels that Ontario's approach to the climate change issue seems rather low key. There are no formal, regular meetings or timelines specifically set for assessing and adjusting, as necessary, the province's performance on climate change. The province has not established an overall greenhouse gas reduction target.

However, in February 2005, the Ministry of the Environment presented an illustrative partial list of measures that the province was undertaking that would result in some level of greenhouse gas emission reductions when achieved. *(For ministry comments, see page 214.)*

Recommendation 4

The ECO recommends that the government expressly identify a lead ministry so that a provincial strategy can be prepared to help meet Canada's climate change obligations, and that the ministry be provided with adequate resources.

Update: Land Application of Septage



In the fall of 2000, the ECO received an *EBR* application for review that raised concerns about the approved practice of spreading untreated human wastes from septic tanks and portable toilets onto farmlands. These wastes are called septage, and because of high levels of pathogens, nutrients, disinfectants and trace levels of other contaminants, they are a risk to ground and surface waters. Ontario residents generate an estimated 1.2 million cubic metres of septage a year, most of which is applied to farmland without treatment.

The applicants saw the need for a consistent policy and enforceable regulations, and requested a moratorium on the practice until its safety for public health and the environment had been studied. The Ministry of the Environment denied this application, stating that the ministry was already carrying out an internal review of the province's septage spreading program. In late 2000, MOE introduced a moratorium on the land application of septage on frozen or snow-covered ground. Then in June 2001, MOE proposed a five-year phase-out of the land application of untreated septage, as part of a broader announcement on the *Nutrient Management Act*.

In November 2002, the ECO received a second application for review, focused on the management of septage waste. The applicants requested a regulation that would clearly set out responsibilities at all stages of the septage disposal process, starting from the emptying of the septic tank to the establishment, operation and management of septage treatment or disposal facilities. Given that MOE was planning to phase out the land application of untreated septage, the applicants were worried about the lack of alternative disposal options. In the absence of a clear legal framework for municipal involvement, the applicants doubted that non-legislated solutions (such as private-public partnerships) would work, and feared that neither municipalities nor the private sector would risk investing in new septage treatment facilities. MOE also denied this review, pointing to its new proposal to phase out land application of untreated septage.

In December 2002, MOE posted a proposal for a regulation to address septage on the Registry, featuring a commitment to ban the land application of untreated septage by 2007. However, most aspects of this measure remain at the proposal stage as of April 2005. The only finalized component is a ban on the land application of untreated portable toilet waste, which took effect in October 2003. (For a description of this measure, see the 2003/2004 Supplement, page 131.)

Components that have not yet been finalized include:

- a five-year phase out of the issuing of certificates of approval for the land application of untreated septage.
- extension of the winter spreading restrictions and land application standards included in the proposed Stage 2 Regulatory requirements under the *Nutrient Management Act.*
- a requirement that municipalities prepare a strategy on how they will manage untreated septage produced within their area.

In early 2005, the ECO requested an update on MOE's proposed strategy for septage. MOE reconfirmed in March 2005 that "the ministry is committed to end the land application of untreated septage." But it appears the phase-out deadline of 2007 has been set aside. The ministry described its ongoing work, including extensive consultation with stakeholders such as municipalities, support for a pilot project with Grey County in 2004, and work with partners on a pilot project examining lime stabilization of septage (to be completed by spring 2005). A team of technical staff from MOE and the Ministry of Agriculture and Food are also working to develop standards for three septage treatment methods: lime stabilization, composting and lagoon storage. Although there is no estimate of when draft standards will be ready, the ministry has committed to posting them on the Registry for public comment.

While MOE has not updated the December 2002 Registry proposal, the province has taken some steps toward clarifying municipal responsibility for septage management through the new Provincial Policy Statement (PPS), which came into effect on March 1, 2005. The PPS includes new language (in section 1.6.4.1e) stating that subdivision for lot creation is allowed only if there is confirmation of sufficient reserve sewage system capacity, including treatment capacity for septage, and further specifies that land-applying untreated septage is not considered sufficient. In effect, this language means that municipalities wanting to approve *new* developments on septic systems must plan for adequate septage treatment capacity (which could in practice be provided by the private sector).

MOE's announcements thus far, coupled with the concerns of septage haulers, have spurred several counties (Grey, Wellington, Huron) and the City of Kingston to begin some coordinated planning for septage management on a voluntary basis. However, it is not clear whether municipalities will be required to plan for septage treatment capacity for *existing* development. As a consequence, Ontario's default disposal option remains the land application of untreated septage. MOE continues to approve new sites for this practice, despite its intention of phasing it out eventually. Even land application on frozen ground is not formally prohibited by regulation, and is still allowed on a case-by-case "emergency" basis by MOE, because alternate storage capacity for septage is simply not available at times.

Across Canada, a number of provinces have already banned the land application of untreated septage, including British Columbia, Manitoba, Nova Scotia, Quebec and Newfoundland and Labrador. MOE evidently has a great deal of work still to do on defining acceptable treatment standards for septage that is destined for land application. Until clear rules are in place, municipalities and the private sector will be reluctant to invest in the construction of alternative treatment capacity. In the Port Rowan area of Ontario, for example, the shortage of septage disposal capacity has already resulted in steep increases in costs of septic tank pump-outs, and there are fears that some property owners may resort to illegal and environmentally damaging solutions to empty their tanks.

The ECO urges MOE to accelerate action on this file, and to finalize a regulatory framework for septage that is protective of public health and the environment.

(For ministry comments, see page 214.)

Update: Great Lakes Water Resources Agreements

The Great Lakes, bordered by eight states and two provinces in the heart of North America, are the largest system of fresh surface water anywhere on planet Earth. These lakes are the lifeblood of Ontario, the source of drinking water for nearly three-quarters of Ontario's population. The Great Lakes basin is home to most of the province's human population and most of its biodiversity. The lakes also provide water for power generation, transportation and manufacturing for 45 per cent of Canada's industries. We rely on them for recreation, inspiration and prosperity.

In 1985, an agreement was struck between Ontario, Quebec, and the eight U.S. states that border the Great Lakes (through the Council of Great Lakes Governors) to address water levels and flows and the environment of the Great Lakes basin. This agreement, the Great Lakes Charter, committed the provinces and states to work to protect the

Great Lakes basin from threats of large-volume water diversions. The Charter included voluntary notice and consultation between jurisdictions if new or increased large-volume water diversions or consumptive uses were proposed.

An addendum to the Great Lakes Charter, called Annex 2001, was signed in June 2001, in response to fears that water might be exported in bulk out of the basin. An Ontario event triggered these concerns. In 1998, the province issued a permit to take water to the Nova Group Inc., a company proposing to ship Lake Superior water in bulk to Asia. The resulting public outcry, and fears that this would trigger international trade agreements and open the tap on bulk water exports, led to cancellation of the permit. In 1999, Ontario passed a Water Taking and Transfer Regulation, which prohibited large water transfers out of the Great Lakes basin. (For a full review, see the ECO's 1999/2000 annual report Supplement.) Ontario, together with the other parties to the 1985 Charter, signed the Annex 2001 agreement, clarifying the principles under which decisions should be made about whether to approve large water takings. Under Annex 2001, proposed water takings should be approved only if they:

- **minimize loss** through conservation and return flow
- **have no significant adverse impacts** on water quantity or quality
- **improve** waters and related resources
- **comply** with applicable laws and agreements.

Annex 2001 committed the 10 signatories to develop implementing agreements, within three years, to address proposed diversions or bulk water exports as well as growing water use within the basin. On July 19, 2004, the states and provinces announced that they had developed a pair of draft Annex 2001 implementing agreements, called the Great Lakes Basin Sustainable Water Resources Agreement and Great Lakes Basin Water Resources Compact. The Ontario Ministry of Natural Resources, the lead negotiator for Ontario, posted the draft agreements on the Environmental Registry with 90-day comment periods, hosted meetings across Ontario to consult with the public, and consulted with First Nations. Consultation was carried out in Quebec and in the United States. The Council of Great Lakes Governors received over 10,000 comments in response to their request for input and at consultation meetings.

Much of the public response was critical of the draft agreements. Many groups called for stronger protection of the Great Lakes waters. One contentious issue was the "improvement standard" that required water use proposals to demonstrate that they would result in improvement of water and related resources. Some argued that only such an "improvement standard" could protect the basin from gradual degradation. Others feared that such a standard would be impossible to implement, and would in practice simply allow those able to pay for ecosystem improvement projects to buy their way into obtaining approval for proposed water takings.

Provisions to require water takers to return water back to the basin were also criticized by commenters who pointed out that diverting water into the Great Lakes Basin from other sources, to make up for water removed, could add to the current problem of alien species invasions. Critics also suggested that the water volume thresholds for triggering the agreement provisions were too high, excluding most water takings. Some called for stronger public consultation provisions, and stronger roles for the federal governments and the International Joint Commission. Many groups suggested that existing takings, not only proposed new takings, should be subject to water conservation requirements under the agreement.

On November 15, 2004, in response to widespread concerns voiced during public consultation, the Minister of Natural Resources announced that Ontario would not sign the existing drafts of the Annex 2001 implementing agreements. MNR indicated that Ontario wants a "no diversions" agreement, or no net loss out of the basin. The ministry argued that while the draft agreements would strengthen water use regulation in many states, they are not as strong as Ontario's laws that prohibit water transfer out of the basin. (For more on Ontario's new process for water takings and its 2004 revision of the Water Taking and Transfer Regulation, see pages 116-120 of this report). Ontario and the other Great Lakes jurisdictions returned to the bargaining table early in 2005.

On June 30, 2005, a new pair of draft agreements was released for 60-day public comment. The draft agreements were posted on the Environmental Registry, and MNR hosted a series of public information meetings across Ontario.

ECO Comment

The ECO commends the Ministry of Natural Resources for responding to public concerns and for insisting on stronger environmental protection provisions in the Annex 2001 implementing agreements. Pressures on the Great Lakes waters continue to mount: population and economic growth in the basin, climate change, and over-exploitation of water in other parts of North America and beyond. The ECO urges the Ontario government to ensure that the Annex 2001 implementing agreements are adequate, in the face of these challenges, to protect the precious Great Lakes waters, and to safeguard the public's rights to participate in future decisions about water takings affecting the basin.

The ECO will continue to monitor developments and decisions on Great Lakes protection, and will report on this issue in future annual reports. *(For ministry comments, see page 214.)*

Update: Ontario's Biodiversity Strategy, 2005

Biodiversity is life itself. It can be understood as the variety of native species, the genetic variability within each species, and the variety of different ecosystems and landscapes they form. It is the result of billions of years of evolution, creating ecological systems so complex that humans are only now beginning to understand their dynamics. The loss of biodiversity is one of the most significant threats facing the planet. Ontario is not isolated from this crisis.

One of the central purposes of the *Environmental Bill of Rights* is to hold the Ontario government accountable for the "protection and conservation of biological, ecological and genetic diversity." In our 2001/2002 annual report, the Environmental Commissioner of Ontario recommended the development of a provincial biodiversity strategy, complemented by a comprehensive assessment of Ontario's current policies, regulations and Acts.

The ECO has been concerned that while ministries may be working away at fragments of environmental issues, they often fail to grasp a wider perspective. This failure to see the bigger picture has very practical consequences, since it can result in policies and programs that are inadequate, misdirected, or even counterproductive. Conserving biodiversity requires a re-thinking of current approaches to environmental issues – efforts that go beyond a simple re-branding of the status quo.

Recognizing the core issues and developing a coordinated plan to address them is an effective way of addressing environmental problems. It also allows for an efficient use of government resources. Environmental problems sometimes appear to be isolated issues, but often they are highly interrelated.

Initiatives to Conserve Biodiversity: Ontario's Record

1992 – Canada signs the Convention on Biological Diversity at the Rio "Earth Summit" and ratifies it the following year

1995 – Canada introduces its own national strategy

1996 – All provinces and territories commit to the national strategy

2002 – The ECO reports that Ontario is not fulfilling its obligations and recommends the creation of a provincial strategy

2002 – Countries report on their progress at the Johannesburg Summit, also known as "Rio+10"

2003 – The ECO reports that no progress has been made by Ontario and further calls for a series of sub-strategies to target key issues

2005 – Ontario unveils its proposed strategy

2010 – The year in which Ontario plans to release a first report that will outline indicators and benchmarks to guide future action

In October 2004, the Minister of Natural Resources announced the development of a biodiversity strategy for Ontario. The minister stated that "we have a responsibility to conserve biodiversity and use our biological resources in a sustainable way. Conserving biodiversity is a key way of ensuring a healthy environment, strong communities and a thriving economy." The minister also cited the "2010 Biodiversity Target" – the year by which all 188 countries that signed the international Convention on Biological Diversity should have achieved a significant reduction of the current rate of biodiversity loss.

MNR subsequently invited approximately 200 people to participate in developing a strategy. These individuals represented conservation groups, resource industries, First Nations and other sectors. Two workshops were held and an independent facilitator oversaw the process.

In December 2004, MNR posted an information notice on the Environmental Registry that advised the public about the initiative and directed them to a non-government internet site to provide comments on a discussion paper. The discussion paper contained information and extracts from other biodiversity strategies and prompted readers to respond online to various questions. Responses were moderated and posted for other readers to review.

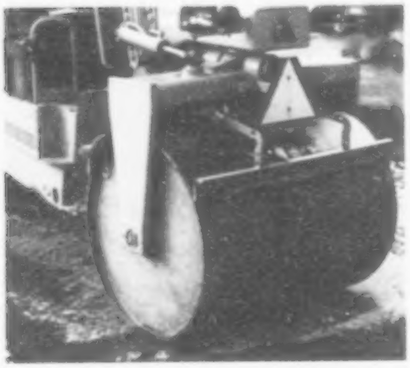
In April 2005, MNR posted a proposal notice for the strategy on the Environmental Registry with a 30-day comment period. The strategy proposes that two goals must be achieved for a "balanced and realistic approach":

- Protect the genetic, species, and ecosystem diversity of Ontario.
- Use and develop the biological assets of Ontario sustainably, and capture benefits from such use for Ontarians.

The strategy identifies five main threats to Ontario's biodiversity: pollution, habitat loss, invasive species, unsustainable hunting and fishing practices, and climate change. These threats also impact biodiversity cumulatively, requiring an integrated approach to be effective. The strategy states that these impacts not only cause the loss of biodiversity, but also damage "society's ability to generate wealth." The strategy proposes to create numerous stakeholder committees. Many of its strategic directions are "initiatives that have been announced or initiated since 2003 by the current Ontario government."

The ECO believes that a successful biodiversity strategy should clearly detail the responsibilities of all relevant ministries, describe decisive actions, contain quantifiable targets, and specify timelines for delivery. It also should target program areas, policies, and legislation that need revision to achieve its goals. In essence, a successful strategy should focus on the new things that need to be done, using an adaptive approach that makes biodiversity the priority. The ECO will closely monitor MNR's implementation of Ontario's Biodiversity Strategy, 2005, and the efforts that other ministries make to support it. *(For ministry comments, see page 214.)*

Update: Highway Construction Practices



Last year, the ECO reviewed an application describing environmentally damaging construction practices during the expansion of Highway 400 in the Muskoka district (2003/2004 ECO annual report, pages 145-150). The applicants complained that contractors working for the Ministry of Transportation had flooded and killed mature trees, obstructed a natural watercourse, caused year-round flooding and extensive siltation of waterways, and installed culverts incorrectly.

In response, the Ministry of the Environment took the unusual step of issuing a Provincial Officer's Order to MTO. Among other things, the order required MTO to have an environmental audit prepared on the full length of the highway project, comparing the construction practices used on the project with the procedures outlined in the project's environmental assessment approval documents. The audit also had to assess who was at fault for any problems identified.

The required audit was completed in January 2005, and fully validated the applicants' concerns. The audit found numerous instances where highway contractors ignored rules for the location of waste sites, neglected to install silt fences or used them incorrectly, failed to install riprap (rocks used for erosion control), failed to vegetate designated sites properly, and allowed water to back up onto private property, killing trees and damaging private property. The audit also noted an "apparent lack of training and knowledge by all staff of the Contractor and Contract Administrator," including a lack of understanding of erosion control techniques. Moreover, the audit observed that "environmental inspectors on the job do not really understand the environmental conditions." Nor were checks and balances used as required: the contract administrator allowed the contractor to ignore a variety of environmental requirements, and did not appear to reduce payments to the contractor for ignoring these aspects.

The audit concluded with numerous recommendations. With regard to this specific highway project, the audit suggested a review of many waste areas, right-of-ways and watercourses, and that MTO consider remedial mitigation measures. Going forward, it recommended strengthening contract documents, including penalties for improper placing of silt fences and payment claw-backs when contractors fail to grade, seed or mulch sites. It also recommended training for all staff involved in such projects, including designers, contractors, contract administrators and environmental inspectors. To improve oversight, the audit recommended that staff of MOE, the Ministry of Natural Resources, and the federal Department of Fisheries and Oceans be invited to regular monthly inspection visits.

The ECO sees considerable merit in these recommendations, particularly the call for environmental training of highway construction teams and administrators, which has also been raised by other observers, such as staff with the Department of Fisheries and Oceans (see page 109). These recommendations, if implemented, would represent a very successful outcome of the *EBR* application process, and could provide real improvements in environmental protection. The ECO will continue to monitor the efforts of MTO, MOE and MNR to address and implement these recommendations. *(For ministry comments, see pages 214-215.)*

Update: Enforcement of the *Fisheries Act*

In 2001/2002, the ECO reported that enforcement of section 36 of the federal *Fisheries Act (FA)* by the Ministries of the Environment and Natural Resources was sporadic and inconsistent. Section 36(3) of the *FA* prohibits the discharge of deleterious substances into waters frequented by fish, unless the discharged substance is regulated under the Act. MNR and MOE were responsible for enforcing this prohibition on behalf of the federal Department of Fisheries and Oceans (DFO) between the mid-1970s and March 2004.

The ECO's 2001/2002 annual report also noted serious problems with implementation of the Fish Habitat Compliance Protocol ("the 1999 protocol") first published by the Fisheries Habitat Advisory Group (FHAG) in 1999. FHAG consists of representatives from MOE, MNR, OMAF, Environment Canada, DFO, Parks Canada, the Coast Guard and Conservation Authorities. The 1999 protocol, and a subsequent revision issued in 2004, set out rules for the various federal and provincial agencies that administer and enforce water laws, regulations and policies, and it attempted to clarify roles and responsibilities.

In 2002, FHAG established a Compliance Working Group (CWG) and tasked the CWG with revising the 1999 protocol, partly to respond to concerns raised in the ECO's 2001/2002 annual report. In February 2004, MNR and MOE representatives on the CWG advised the ECO that, beginning in April 2004, they would be piloting a revised FHC protocol ("the 2004 protocol"). One implication of the 2004 protocol is that DFO and Environment Canada are assigned lead roles in enforcement of the *FA*, with MOE and MNR providing support but not directly enforcing or prosecuting alleged *FA* contraventions. In practical terms, this means that Ontario residents are effectively barred from applying for *EBR* investigations of alleged *FA* contraventions because the *EBR* applies only to prescribed Ontario ministries. Indeed, since early 2004, ECO staff have advised members of the public that it is no longer possible to file *EBR* investigations related to alleged *FA* contraventions even though the *FA* is still listed as a prescribed Act for investigations under the *EBR*.

In September 2004, the CWG provided ECO staff with a detailed briefing on the status of the implementation of the 2004 protocol. The ECO was advised that the 2004 protocol was working well and that FHAG had developed a Web site which focuses on its activities and allows for tracking of investigations (www.fish-habitat.com).

For our 2004/2005 annual report, the ECO once again requested that both MOE and MNR provide updates on the implementation of the 2004 protocol and on the work of the CWG. Because MNR and MOE no longer led prosecutions of s. 36(3) of the *Fisheries Act* under the 2004 protocol, the ECO did not request updates on their prosecutions and related compliance activities.

Both MOE and MNR reported in their March 2005 progress updates that the CWG continued to meet to review implementation of the compliance protocol and coordinate activities. MNR stated that the CWG "is reviewing the results of the trial implementation and is updating the Protocol accordingly" and that the CWG has developed "a process to assist with local implementation and will include it in [an updated] protocol."

Despite this reassuring statement, the ECO also was advised by MNR and MOE staff that the 2004 protocol might have to be reviewed in light of the federal government's planned cuts to DFO, announced in the 2005 federal budget. In late February 2005, regional DFO staff were advised that up to 45 enforcement staff and biologists in Ontario would be laid off by 2007. These cuts may make it difficult for DFO to fulfil its proposed role as a lead enforcement agency under the 2004 protocol.

Registry notices and *EBR* compliance issues

In our 2002/2003 annual report, the ECO noted that MNR and MOE should post a notice on the Registry if they and other FHAG agencies proposed environmentally significant changes to the 1999 protocol. On its face, the CWG has introduced some crucial changes related to *FA* enforcement in the 2004 protocol. However, both MOE and MNR argued that the 2004 protocol was only an "interim," and not a "final,"policy and decided not to post it on the Registry as a regular policy proposal in 2004 prior to the start of the 2004/2005 pilot project.

Since April 2004, FHAG and its respective agencies have trained thousands of staff at their respective organizations on the application of the 2004 protocol and distributed thousands of copies of it to ministry staff and the public. ECO staff urged MNR and MOE at a September 2004 briefing to begin to seek internal approval to post the revised protocol on the Registry once the pilot phase is completed. In its March 2005 update, MNR stated that "agencies currently are reviewing the process for posting the Protocol on the Registry." As of June 2005, neither MNR nor MOE had posted a proposal notice about the 2004 protocol on the Registry.

Other developments

In May 2004, three Ontario Court of Appeal judges unanimously upheld the City of Kingston's three *FA* convictions for allowing what has been described as a "toxic soup" to seep out of the city's former landfill underneath the Belle Park golf course and into the Cataraqui River. The ECO had noted in our 2001/2002 annual report that decisions such as *R.* v. *Inco* (Ontario Court of Appeal, 2001) have effectively established a discrepancy between the high level of protection for fisheries waters available under the *FA* and a lower *Ontario Water Resources Act (OWRA)* level set out for other surface waters by the Ontario Courts. Several points on the *FA* and its relationship to the *OWRA* contained in the ECO's 2001/2002 annual report were cited by the original prosecutor, Sierra Legal Defence Fund, in its appeal brief filed at the Ontario Court of Appeal. In early 2005, the Court of Appeal's decision was upheld by the Supreme Court of Canada.

In October 2004, the Ontario government tabled Bill 133, the *Environmental Enforcement Statute Law Amendment Act, 2004*, in the legislature. Statements and press releases issued by MOE between October 2004 and April 2005 indicate that Bill 133 is intended to enhance quick enforcement action against large and medium-sized polluters and encourage businesses to take action to prevent discharges and spills. Proposed amendments to the *Environmental Protection Act (EPA)* and the *OWRA* will provide MOE with more extensive enforcement powers, require increased and improved reporting of spills and discharges, expose employees, corporations, officers and directors to greater liability and penalties, and broaden MOE's ability to conduct inspections.

Bill 133 also proposes *OWRA* amendments that will lower the threshold for MOE to deem that water has been impaired and mirror the expanded enforcement provisions in the Bill 133 *EPA* amendments. The ECO had recommended in our 2001/2002 annual report that MOE amend the *OWRA* so that a level of protection equivalent to that found in section 36(3) of the *FA* is contained in Ontario water protection legislation. In its March 2004 update to the ECO, MOE stated that "the *OWRA* is satisfactory in its present format as the *OWRA* allows for higher penalties, places responsibility on the regulated parties to provide notice to MOE of spills and allows for the issuance of orders" to ensure clean-up and compensation to victims. However, the first reading version of Bill 133, amended and passed in May 2005 by the Standing Committee on the Legislative Assembly, reflects a shift in thinking about the adequacy of the *OWRA*. The ECO will monitor progress on Bill 133 and intends to review the new law in a future ECO annual report.

In March 2005, MOE launched a prosecution of Imperial Oil in Sarnia, relying on s. 36(3) of the *FA*, after a ministry investigation of an alleged February 2004 spill of ketone solvents to the St. Clair River. While this use of the *FA* is welcomed by the ECO, it also is inconsistent with the 2004 protocol, because MOE is supposedly not a lead enforcement agency for the *FA*. MOE's action in this case suggests that amendments to the 2004 protocol may be warranted to clarify exceptions. *(For ministry comments, see page 215.)*

Recommendation 5

The ECO recommends that MNR and MOE immediately post a proposal notice on the Environmental Registry and consult with the public on changes to the Fish Habitat Compliance Protocol drafted in 2004.

PART 4

Ministry Environmental Decisions

Each year the Environmental Commissioner of Ontario reviews a sample of the environmentally significant decisions made by the provincial ministries prescribed under the *Environmental Bill of Rights*. During the 2004/2005 reporting year, 2,010 decision notices were posted on the Environmental Registry by Ontario ministries. Decision notices were posted for the following:

- 41 Policies
- 5 Acts
- 35 Regulations
- 1737 Instruments

The extent to which the ECO reviews a ministry decision depends on its environmental significance and the public's interest in the decision. The ECO undertook detailed reviews of the 19 decisions that appear in the Supplement to this annual report. The ECO has also summarized and highlighted 13 of these decisions in the following pages of this report.

Ontario's Forest Fire Management Strategy

The Ministry of Natural Resources has lead responsibility for forest fire management in the province. MNR proposed its Forest Fire Management Strategy for Ontario in 2000, approving it four years later. Its intent is to establish measurable, attainable objectives for fire management that take into account the need for public safety, existing and planned infrastructure, plans for wood supply, protected areas, resource-based tourism, and wildlife habitat.

MNR's fire strategy provides the management direction for 107 million hectares of Crown and private lands, essentially covering all the Crown land in the province outside southern Ontario. The Aviation and Forest Fire Management Branch in the ministry's Forests Division has the primary responsibility for this program and strategy. This branch has an estimated budget of $96 million for the fiscal year 2004/2005.

Fire is a phenomenon that plays an instrumental role in shaping the ecology of entire landscapes. A few large fires that are spread over a handful of days in the fire season can consume most of the burned area in a region; in fact, approximately 3 per cent of all fires account for almost all of the area burned and most of the fire management expenditures.

Fires have burned approximately a quarter of a million hectares of forest each year in Ontario in recent decades, but the area burned varies dramatically from year to year. In contrast, almost three times this amount of forest burned prior to the introduction of forest fire suppression in the 1920s.

MNR states that recent initiatives, including the Ontario Forest Accord, have placed increased emphasis on the protection of wood supplies across the province (see pages 80-82). The Ontario Forest Accord outlines a commitment to increasing the intensity of forest management in areas of the province designated for commercial forestry and calls for increasing the fire response priority in these areas to protect this investment from fire. At the same time, the Ministry of Natural Resources acknowledges that protecting wood supply through fire suppression may jeopardize the long-term productivity and ecological health of forests.

Forest infestations

The ECO is concerned that there are serious inconsistencies in the Forest Fire Management Strategy, with landscape-level ecological implications. These inconsistencies are based on giving priority to short-term wood supply over the ecological role of fire in some areas. For example, Ontario has experienced repeated infestations of spruce budworm and forest tent caterpillar that have resulted in large tracts of dead or dying trees. Fire suppression is recognized as one of the causes of such infestations due to changes in forest composition and age structure.

MNR does recognize that "without fire protection, these forests would burn, renew themselves to healthy young forests, and return to productive forests more quickly." However, the fire strategy states that "forest harvesting is active throughout these areas and available wood supply must be protected from fire." Clearly, the strategy is designed to protect short-term wood supply at the expense of the natural ecological and hazard-reducing role of fire on the landscape.

Forest species composition and age class imbalance

MNR also recognizes that forest harvesting and the subsequent absence of fire have altered the species composition of the forests and skewed the natural balance of tree age, resulting in forests where trees are either very young or very old. In the boreal forest, stands of softwood species such as spruce and jack pine, which thrive after fire, are being replaced with hardwoods such as trembling aspen and balsam poplar, which are intolerant of both shade and fire. Clearcutting, combined with inadequate regeneration efforts, is the main cause of this species conversion in Ontario's boreal forest, according to many credible audits.

Prescribed burns

The ECO is concerned with the minimal role outlined in the strategy for the use of prescribed burns. Prescribed burns are carefully planned fires that are set to meet specific needs, such as burning dead and dying trees to reduce fire hazards or to regenerate a site. Catastrophic fires may occur, for example, when fires have been suppressed, because forest fuels have been allowed to accumulate that otherwise may have been consumed naturally by smaller fires. Catastrophic fires that are the result of suppression and excessive fuel loads do not mimic normally occurring forest fires, but burn with a much greater intensity and at a much larger scale.

MNR's strategy does not contain any quantitative targets for prescribed burns, despite the use of targets for other components of the strategy. MNR states that 6,166 ha of Crown land had undergone prescribed burns in 1990/1991. A decade later, this number had dropped to only 711 ha. This trend also has been matched by a decrease in the number of prescribed burns in the area set aside for commercial forestry in Ontario, where for some years not even a single prescribed burn has been set. This reduction in the number and frequency of prescribed burns may be a direct consequence of other MNR policies: prescribed burns are now at the discretion of forestry companies, who must also bear the entire cost of planning and undertaking prescribed burns.

Fire suppression and forest-dwelling species

Fire is a landscape-level process that many of Ontario's forest-dwelling species of flora and fauna have evolved to depend on for their survival. Shifts in species composition and age class imbalances of forests as a result of fire suppression will affect the behaviour, populations, and overall survival of many species. The ECO notes that fire is a chemical process that cannot be replaced through clearcutting and fire suppression. For example, the forest-dwelling boreal population of woodland caribou depends upon fire as an ecological process to renew their habitat. It is not known how this policy choice – to replace naturally occurring fires with forest harvesting – will affect this species at risk.

ECO Comment

The ECO recognizes that governments face a challenging task in designing fire strategies, since they must incorporate a broad spectrum of objectives – everything from protecting public safety and infrastructure from fire to that of realizing fire's ecological role in fire-driven landscapes. However, the ECO has significant concerns with MNR's Forest Fire Management Strategy, which has failed to place sufficient emphasis on the rejuvenating role of fire in forest ecosystems and the management of fire risk.

There are two distinct directions that forest fire strategies may take. The first approach focuses heavily on fire suppression in order to prioritize certain objectives, such as protecting human communities and the commercial wood supply. This approach measures its success based on targets such as areas burned and the initial attack success rate – how quickly fires are contained. This approach is narrow in its view of management, since it generally concentrates resources on fires that have already ignited or will soon ignite. As such, this approach has a relatively short-term time horizon for fire management planning. What this approach gains in short-term benefits, such as a steady commercial wood supply, it sacrifices at the expense of long-term effects such as poor forest regeneration, increased fuel load, and the risk of future catastrophic fires. MNR's strategy is modeled on this short-term perspective.

Alternatively, a second approach is to focus on managing the *risk* of forest fires, rather than primarily focusing resources on fires once they have already ignited. It places significant emphasis on fuels management, attempting to address the causal factors that contribute to catastrophic forest fires. This approach requires that resource planners in both government and the forest industry actively plan up front for fires – decades before they may occur. In doing so, fuel loads are managed and future fires that do occur will burn in a more controlled fashion, and at the same time, in a way that recognizes their ecological role. The protection of communities and infrastructure remains a priority of paramount importance, but the risk of fires endangering public safety is actively planned for through the use of prescribed burning and ecologically sensible thinning operations to reduce fuel loads. This proactive approach also costs far less.

In contrast to MNR, the U.S Forest Service has recently rejected the suppression-oriented approach and has re-focused its strategy on managing fire risk at a landscape level. Despite the fact that the U.S Forest Service had reached a 99 per cent initial attack success rate – higher than MNR's own targets in the Forest Fire Management Strategy – the Forest Service had been incurring record-setting costs, losses, and damages in fire areas where severe, catastrophic fire should have been rare. The U.S. Forest Service realized that devastating fires were continuing to occur because they had been attempting to manage the landscape to protect everything from the commercial wood supply to human communities, but not in ways that were consistent with the ecological dynamics of fire-driven landscapes.

The ECO is concerned that the MNR's Forest Fire Management Strategy contains little discussion of the methods that could be used to reduce fuel loads. For example, while the fire strategy does contain targets for suppression activities, it does not contain any targets for prescribed burning. In contrast, British Colombia has reviewed its fire strategies and is shifting toward a risk-based approach to fire and land management. Some of B.C's key recommendations for reducing fuel buildup include fuel treatment projects and assessments near urban areas, on-site burning of slash to reduce the risk of fire, and training more professionals.

The approach of both the U.S. Forest Service and B.C.'s fire program strongly emphasizes the role of public education and awareness. While MNR does include these goals under one of its objectives, the ministry's fire strategy does not contain any measurable targets in this regard. This is a significant weakness, as fire management can be a very controversial undertaking. U.S. Forest Service targets related to education include the number of communities that have adopted forest fire safety practices. In contrast, the B.C. fire program review also recommended strategies for fireproofing at-risk communities, mandating zoning and building code changes to reduce risks, and pilot projects that would enhance safety and economic benefits.

The ECO notes that the goal of a progressive fire strategy should not be to eradicate fire, but rather to allow for naturally occurring fires that are within acceptable limits and that do not threaten public safety. The goal of such strategies should be the long-term ecological health of forests. These strategies should allow, as well as reintroduce, *the right kind of fire* in terms of burning intensity, duration, and time of year. The ECO also believes that MNR should develop policies that require forestry companies to conduct prescribed burns, while outlining a direct and supporting role for the ministry in the process.

(For a detailed review of Ontario's Forest Fire Management Strategy, see the Supplement to this report, pages 198-208.) *(For ministry comments, see page 215.)*

Recommendation 6

The ECO recommends that MNR require forestry companies to utilize prescribed burns where appropriate, while outlining a direct and supporting role for the ministry in the process.

Provincial Wood Supply Strategy

In 2004, the Ministry of Natural Resources produced a Provincial Wood Supply Strategy – a consolidated wood supply report and plan of action for Ontario. The primary purpose is to identify critical wood supply issues and provide strategies to address those issues.

The strategy describes an impending shortage of wood for the commercial forest industry as the available mature timber supply declines and until the young trees regenerated in the past 20 years reach harvest age. In the boreal forest, the supply of softwoods is forecast to fall below demand in five to 10 years and take 80 years to recover fully. For poplar, shortages will begin in 15 years and take 70 years to recover.

This supply gap has been forecast by MNR for over 10 years. Decades of successful fire suppression, accelerated harvest and inadequate renewal efforts have resulted in a scarcity of forest stands between 20 and 60 years old to replace the mature forest as supply declines. The creation of new protected areas and the application of new forest management guides that protect areas of forest for wildlife habitat have also been cited as factors in reducing wood supply.

MNR says that the wood supply gap is by far the most critical issue facing the forest industry, presenting an unavoidable dilemma – increase the wood supply or reduce mill consumption. MNR's stated wood supply objectives, within the overall bounds of forest sustainability, are to sustain a continuous, predictable, long-term wood supply necessary for industrial processing facilities, and to increase the level of long-term supply.

The action plan sets out 20 strategies intended to improve information, refine demand and increase supply. Some of the high priority strategies include:

- consolidating/streamlining environmental forest management guidelines.
- introducing intensive forest management practices to grow more trees in less time.
- increasing the use of available wood.
- increasing protection from fire and insects.
- reviewing mill demand levels.
- providing mill demand information to planning teams to help set wood supply objectives and available harvest levels.

ECO Comment

The ECO supports some of the strategies aimed at improving forest information and silvicultural effectiveness, as well as a forest health monitoring program to detect stresses related to climate change, insect or diseases. But, overall, the Provincial Wood Supply Strategy gives too much weight to industrial demand at the expense of the long-term health and ecological viability of Ontario's Crown forests. It also illustrates a shift in the balance between ecological and economic factors in the ministry's decision-making.

Only one strategy among 20 reflects the need to adjust to a declining supply. The rest of the proposed strategies either refine demand through improving the quality of information or attempt to increase wood supply, instead of constraining demand to bring it in line with the declining supply. And despite the assurance that the wood supply objectives will be met "within the bounds of overall forest sustainability," some of the proposed strategies have the potential to threaten long-term forest health and even exacerbate the wood supply issues (e.g., see also pages 75-79). The increased emphasis in the Wood Supply Strategy on using mill demand information to set wood supply objectives and potentially influence available harvest levels in forest management plans raises doubts as to MNR's assurance that wood supply is determined by an assessment of what the forest can sustainably provide.

> *The wood supply gap has been approaching for a long time, and the root cause is the age-class imbalance caused by fire suppression, accelerated harvest and inadequate renewal efforts.*

The Wood Supply Strategy and initiatives such as the Minister's Council on Forest Sector Competitiveness have been influenced by the recent closure of mills in northern Ontario communities. But wood supply shortages are only one of the factors cited by companies closing mills. Other reasons provided by companies include the falling U.S. dollar, U.S. duties on Canadian softwood lumber and high energy costs.

The wood supply gap has been approaching for a long time, and the root cause is the age-class imbalance caused by fire suppression, accelerated harvest and inadequate renewal efforts. MNR already knew about this gap before it made a commitment in the Ontario Forest Accord in 1999 – that the ministry would support the concept of long-term continuity and security of the wood fibre supply.

Cutting more and more of the mature forest, to the detriment of other forest values, is still not going to produce the productive second-growth forest needed to sustain the forest industry in the medium and long term. The forest industry also needs to demonstrate that it is operating within the bounds of sustainability in order to achieve and maintain forest certification, increasingly demanded by international wood markets. Parks and buffer zones are not reasons for the impending wood shortage, and removing or weakening environmental safeguards is not the answer.

(A full review of the Wood Supply Strategy and its implications can be found in the Supplement to this report, pages 178-184.) *(For ministry comments, see page 215.)*

Aquaculture Policies and Procedures

In August 2004, the Ministry of Natural Resources finalized 10 new policies and procedures on aquaculture – the farming of fish, shellfish and aquatic plants. These documents lay out the ministry's overall framework for licensing aquaculture, the approvals procedures related to various sources of fish used in aquaculture operations, and detailed procedures for issuing aquaculture licenses. Some of the policies deal with specific types of aquaculture, such as aquaculture on private land, and "fee for fishing" operations. MNR posted a proposal on the Registry in February 2000 for eight of the 10 draft policies that it considered environmentally significant.

However, an eleventh policy, Aquaculture on Crown Land, was not released either with the 2000 drafts or with the suite of policies finalized in 2004. This missing piece is the policy that would provide specific guidance for MNR's licensing of cage aquaculture in the Great Lakes.

Background

Ontario's aquaculture operations include both "land-based" facilities such as dug ponds and concrete tanks, and "cage aquaculture" operations – cages floating in lakes or rivers. Cage aquaculture in Georgian Bay and elsewhere in the Great Lakes accounts for roughly four-fifths of Ontario's farmed fish production and has attracted the most controversy. (A 2003 *EBR* application for review of cage aquaculture policies and regulations is described on pages 133-137.)

MNR licences aquaculture operations under O. Reg. 664/98 (Fish Licensing) of the *Fish and Wildlife Conservation Act (FWCA)*. The regulation requires a licence to culture, buy and sell fish (the aquarium trade is exempted from this requirement), and other licences for stocking fish and for collecting fish from Ontario waters. The regulation also requires cage aquaculture operators in waters over public land (e.g., the Great Lakes) to monitor their water quality impacts.

The Ministry of the Environment plays a supporting role – for example, by advising MNR on which water quality monitoring conditions to set for cage aquaculture licences. Other agencies involved include the Ministries of Agriculture and Food and Northern Development and Mines, Conservation Authorities and municipalities, and the federal Department of Fisheries and Oceans.

(For more details on the 10 new aquaculture policies and procedures, refer to pages 161-172 of the annual report Supplement.)

Ecological risk and public consultation

MNR's aquaculture policies require licence applicants to complete a risk analysis to determine the impacts escaped fish might have on local fish populations and to establish the level of security (escape prevention) that must be in place.

Under *EBR* regulations, MNR must post a proposed aquaculture licence for full consultation on the Environmental Registry if (a) the applicant is required to submit a Detailed Ecological Risk Analysis, or (b) the licence is for cage aquaculture in waters over Crown land. However, MNR's 2004 policies indicate that a Detailed Ecological Risk Analysis will be carried out only in exceptional circumstances. For most applications, a Short Form Risk Analysis will be used instead, and full *EBR* consultation will not be undertaken.

For Great Lakes cage aquaculture, MNR invokes section 32 of the *EBR*, which exempts ministries from *EBR* instrument consultation and appeal provisions if an instrument is part of a project approved under the *Environmental Assessment Act (EAA)*. MNR will screen applications for Great Lakes cage aquaculture licences through the ministry's Class Environmental Assessment – Resource Stewardship and Facility Development Projects. MNR will post an **information** notice with a comment period on the Registry, instead of a regular proposal notice. Since the aquaculture policies were implemented in August 2004, MNR has classified most of these applications for licences as proposals of low concern under the Class EA and approved them with minimal public review.

MNR discretion in regulating aquaculture

The 2000 draft policies required MNR to conduct a site visit before issuing a licence. This step has been removed from the final policies. Instead the policies suggest, but do not require, facility inspections during the term of the licence, subject to MNR's discretion.

The policies leave many other matters to MNR's discretion. For example:

- For each applicant, the ministry sets a threshold of fish that may escape before operators are required to report the escapes.
- MNR considers applications for a licence to collect fish from Ontario waters on a case-by-case basis.
- MNR decides when there is a "very high ecological risk" requiring a Detailed Ecological Risk Analysis.
- Operators are required to report fish diseases, but the policies provide no clear guidance on the steps that MNR must then follow.

Public participation and the *EBR* process

This Registry proposal was posted on February 4, 2000. All eight policies identified by MNR as environmentally significant were summarized in a single notice, which outlined proposed changes without providing hyperlinks to the draft documents. The proposal was not updated until the August 2004 decision notice. Some changes in the final version resulted from changes to regulations during the interim years, such as the 2002 approval of a new MNR Class Environmental Assessment. By not posting an update of the 2000 aquaculture policy proposal, MNR failed to alert the public about its plan to use this Class EA to exempt certain licences – for instance, Great Lakes cage aquaculture – from *EBR* consultation requirements.

ECO Comment

The ECO was pleased to see that MNR reached a decision on the aquaculture policies it proposed in 2000. For years, the aquaculture industry has been asking the Ontario government to provide clearer direction.

However, the failure to release the policy, Aquaculture on Crown Land, that will guide Great Lakes cage aquaculture is disappointing, as these operations represent the majority of fish cultured in Ontario, and present the highest environmental risk. The ECO urges the ministry to formalize this key policy, and related protocols that it is developing together with MOE, through a fully consultative process.

The ECO also reminds MNR that for each proposed policy, a separate notice should be posted, including a link to the draft document. However, proposals should not be left to languish on the Registry for years.

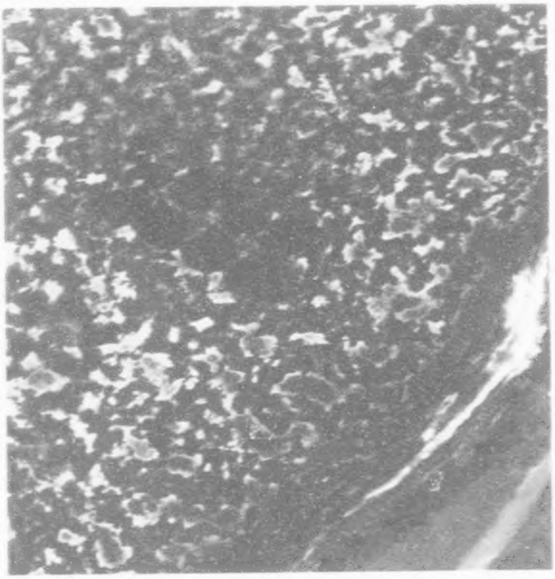
The focus of MNR's aquaculture policies is fish escapement and potential impacts on wild fish. These are valid concerns. However, other environmentally significant risks –

to water quality, to aquatic plants and to bottom-dwelling animals – are not given due consideration. There are also no provisions for restoring environments degraded by fish farming. The ECO urges MNR to address the range of environmental risks and impacts, in collaboration with MOE and other interested agencies.

The MNR policies guide MNR staff and address that ministry's concerns, but they leave it to the aquaculture operator to obtain any necessary approvals from MOE or other agencies. There is still a need for MNR, as lead ministry, to work with other agencies to develop a more integrated approach.

Cage Aquaculture: A Persistent Footprint

This photo was taken over the La Cloche Channel of Lake Huron in spring 2005, seven to eight years after a cage aquaculture operation at this site was shut down. The spring ice melted earlier over the site of the former cages, indicating the ongoing impacts of aquaculture-contaminated sediment on local water chemistry. The Ministry of Natural Resources' new aquaculture policies do not include a requirement for site remediation to address the environmental impacts of cage aquaculture operations.



The aquarium trade is largely exempt from the aquaculture regulations and policies. Yet the danger of species introductions, a primary consideration in the aquaculture policies, is also a concern with aquarium species. Risk assessment principles in Ontario's aquaculture policies could be adapted for the aquarium industry, to minimize the risk of non-native ornamental species invading Ontario waters.

These aquaculture policies leave many important environmental matters to MNR's discretion, rather than providing clear, documented guidance. The impacts of such an approach will depend largely on whether MNR dedicates sufficient resources and technical capacity. The policies also rely heavily on industry self-reporting. With no site visit by MNR prior to issuing a licence, with only infrequent inspections, and without provisions for government monitoring of operational processes and environmental impacts, damage to the environment, along with contraventions of the *FWCA* and other laws, may go undetected. Full transparency and full public consultation could be of great help in ensuring that local ecological issues are appropriately addressed.

By invoking section 32 of the *EBR* and applying a Class Environmental Assessment, MNR is sidestepping the *EBR*'s consultation and appeal provisions for cage aquaculture operations in the Great Lakes. The ECO is disappointed that MNR is ignoring the spirit of the *EBR* and failing to provide full public consultation on most of these aquaculture licences, despite growing public interest and despite the clear intent of the *EBR*'s O. Reg. 681/94, Classification of Proposals for Instruments. This is especially disappointing, in light of MNR's commitment in July 2001 that the ministry would ensure these types of approvals were subject to the public consultation requirements of the *EBR*, a commitment made in response to a June 2001 ECO Special Report urging MNR to finalize its instrument classification regulation by amending O. Reg. 681/94. If MNR chooses to exempt Great Lakes cage aquaculture from this *EBR* requirement, the ECO urges the ministry to do so in a transparent and accountable manner: through a revision to O. Reg. 681/94, after a full public consultation regarding the revision. *(For ministry comments, see page 215.)*

Recommendation 7

The ECO recommends that MNR develop transparent and accountable processes related to approvals for aquaculture operations.

Conserving Ontario's Wolves: Steps Forward

In March 2004, the Ministry of Natural Resources announced a suite of commitments to conserve Ontario's two species of wolves – gray wolves and eastern wolves. These commitments included the development of a "proper wildlife management program for Ontario's wolves" to "ensure that Ontario gets the vital scientific information it needs to protect and manage wolves." These commitments represent a significant shift in wildlife management practices in the province, as the Ontario government had historically treated wolves as vermin and offered a bounty on them as recently as 1972.

Though both gray wolves and eastern wolves are recognized as keystone species because of their disproportionately important role as top predators in the functioning of ecosystems, little data exist on their populations and ranges across Ontario. Additionally, the number of eastern wolves is low enough – due to the loss of habitat and pressures from hunting – for them to be considered a species at risk. According to MNR's estimates, trappers harvest 300-500 wolves a year and hunters kill 500-1,000 wolves a year. Harvest reports do not distinguish between eastern wolves and gray wolves.

Eastern wolves have lost 58 per cent of their historical range in Canada and are now extirpated from the Atlantic provinces and the eastern United States. The highest population densities of eastern wolves are reportedly found in southwestern Quebec and southeastern Ontario, particularly in Algonquin Provincial Park. Monitoring programs have never been conducted to determine their numbers accurately across Ontario as a whole, and MNR's recent population estimates vary disturbingly from 900 to 1,600.

The eastern wolf is legally designated as a "species of special concern" under the federal *Species at Risk Act*, which means the species is considered to have characteristics that make it sensitive to human activities or natural events. However, although MNR has also designated it as a species of special concern in ministry policy, Ontario's *Endangered Species Act* does not grant protections to the species (see pages 148-152).

The gray wolf is found in northern Ontario. Gray wolves have a larger build than eastern wolves, which are more like coyotes in appearance. MNR has never attempted to make a comprehensive assessment of the number of gray wolves in Ontario, but the ministry speculates that there are approximately 7,200. Gray wolves are not considered to be a species at risk by either the federal government or MNR.

In November 2004, the ministry proposed a number of regulatory measures for wolves in selected wildlife management units in central and northern Ontario intended to control their harvest, to provide a mechanism for the ministry to collect vital information, and to enable the ministry to make future conservation decisions. This proposal extended the same regulatory measures to coyotes within the wolf range, because in large areas of the province, the range of the two species overlaps. Coyotes are very difficult to distinguish from wolves, especially eastern wolves. MNR's proposal included:

- requiring a wolf/coyote game seal, in addition to requiring a small game licence.
- establishing a limit of two wolves or coyotes per hunter per year.
- establishing a wolf game seal fee for residents at $10 per seal and for non-residents at $250 per seal.
- establishing a closed wolf/coyote hunting and trapping season.
- requiring mandatory reporting of wolf/coyote hunting activity and harvest.
- requiring that these new regulations apply in wildlife management units in central and northern Ontario within wolf range.

In March 2005, MNR followed through with parts of this proposal, establishing a closed season that will take effect from April 1 to September 14 of each year in 67 wildlife management units. The closed season does not cover southern Ontario, and it does not restrict the protection of livestock by farmers. The ministry also announced that it plans to establish a wolf advisory committee in December 2005 "to review additional wolf information as it becomes available." As of March 2005, the ministry had not reached a decision on requiring a wolf/coyote game seal and annual mandatory reporting, but it did state that these measures were still under consideration.

Hunting wolves, which are designated as furbearing mammals under the *Fish and Wildlife Conservation Act*, requires a valid Outdoors Card and a small game licence. Already, small game licences were not valid from June 16 to August 31 each year in the parts of Ontario lying north and west of a line from Georgian Bay to the Ottawa River. Therefore, the new closed season effectively doubles the time period during which it is prohibited to hunt wolves in central and northern Ontario. Still, raccoons, red foxes in northern Ontario, arctic foxes, gray foxes, weasels, and opossums all have more restrictive closed seasons than wolves, and the only furbearing mammals with less restrictive closed seasons are red foxes in southern Ontario and skunks.

ECO Comment

The ECO is encouraged by the initial steps that MNR has undertaken to conserve Ontario's wolves. Wolves are among the most easily identifiable symbols of wilderness in the province, and how they are treated reflects on our broader stewardship of Ontario's natural environment. Not only must wolf populations be sustainable for their own sakes, but they must also have the capacity to fulfil their natural ecological role as a top predator.

The new closed season now effectively treats wolves in the same way that the ministry treats most of Ontario's other species of mammals. This is a dramatic shift in attitude, and it brings MNR's treatment of wolves in line with that of other jurisdictions. However, as acknowledged by the ministry itself, this represents only an "initial step" in establishing a proper wildlife management program for Ontario's wolves. The establishment of bag-limits, reporting requirements, and monitoring programs will provide valuable information to guide future actions. These future actions must be based on sound science to conserve Ontario's wolves effectively, as well as being defensible and understandable for the public.

MNR should heed the cautionary tale of the treatment of wolves in the United States, including the lengthy and extremely costly measures to restore wolves to some of their former range in the lower 48 states. It is far easier and significantly less controversial to conserve a species still in the wild than to have to re-introduce it. *(For ministry comments, see page 216.)*

Aggregate Extraction on the North Shore of Lake Superior

In April 2004, in response to public concerns about a planned rock quarry's potential environmental and social impacts, the Ministry of the Environment posted a proposal on the Environmental Registry to designate the quarry operation under the *Environmental Assessment Act (EAA)*. Superior Aggregates, a subsidiary of an American contracting and road-building firm, planned to establish the quarry on the north shore of Lake Superior in Michipicoten Harbour near Wawa, situated on a 2,900 km stretch of shoreline which the Ministry of Natural Resources designated the "Great Lakes Heritage Coast" (GLHC) in 1999.

Most private land in southern Ontario is designated under the *Aggregate Resources Act (ARA)*, administered by MNR, and therefore subject to its rules, including requirements for site plans, compliance reporting, rehabilitation and public consultation. However, most private land in northern Ontario is not subject to the rules of the *ARA*, including the Township of Michipicoten at the time MOE posted the notice on the Registry.

Before MOE announced a decision on its proposal, however, MNR posted an emergency exception notice on the Registry in August 2004, telling the public that parts of the Territorial District of Algoma, including the Township of Michipicoten and the Superior Aggregates property, had been designated under the *ARA*.

In December 2004, MOE issued its decision not to designate the proposed quarry under the *EAA*, explaining that it believed that concerns expressed about the project could be best addressed under four other Acts: not only the *Aggregate Resources Act*, but also the *Planning Act*, the *Environmental Protection Act (EPA)* and the *Ontario Water Resources Act (OWRA)*. All aggregate operations in Ontario, whether or not they are designated under the *ARA*, must ensure proper zoning of the site as per the *Planning Act*, abide by the noise and pollution requirements set out in the *EPA*, and apply for permits under the *OWRA* if necessary.

One week later, MNR posted a proposal notice on the Registry in which it proposed to issue Superior Aggregates a Class A licence under section 7(2)(a) of the *ARA*, for an unlimited annual extraction tonnage. As of April 2005, the MNR notice and related approvals under the *Planning Act* were still proposals on the Registry.

(For further information regarding this decision, see the Supplement, pages 105-116.)

ECO Comment

This case draws attention to the failure of the Ministry of Natural Resources to subject significant aggregate-rich areas in the province, especially those in the north, to the *Aggregate Resources Act* in a timely manner, despite a commitment at least as far back as 1998 to do so.

The ECO agrees with MOE's assessment that the *ARA*, the *Planning Act*, the *Environmental Protection Act* and the *Ontario Water Resources Act* "have the scope to address the key environmental concerns and the public interest" regarding the proposed quarry operation. The *ARA* provides a comprehensive framework for managing the environmental and social impacts of an aggregate operation throughout its lifecycle. It requires consideration of a number of factors, including any possible effects on nearby communities, the environment, and ground and surface waters. The *ARA* requires public notification and consultation for new operations as well as progressive and final rehabilitation, and it provides for ministry inspection and compliance enforcement.

Nevertheless, the ECO does note that there have been some shortcomings in the application of the Act, including the fact that MNR consistently fails to meet its annual targets for compliance monitoring (see page 62 of the ECO's 2003/2004 annual report). As well, the rehabilitation of old pits and quarries is not keeping pace with the establishment of new operations, despite the requirements of the Act (see page 30 of the ECO's 2002/2003 annual report).

Many commenters sought a full individual environmental assessment (EA), arguing that this would have ensured a full examination of the need for the quarry and any alternatives to it. However, designation of the project under the *EAA* might not have generated a full EA study or hearing at the Environmental Review Tribunal. The ECO has also observed a number of serious shortcomings with compliance monitoring and enforcement under the *EAA* (see page 150 of the ECO's 2003/2004 annual report).

In addition to taking steps to meet its commitment to designate all other significant resource areas of the province under the *ARA*, MNR should ensure that all aggregate operations – including the Superior Aggregates quarry, if approved – comply with existing rules under the *ARA* and all other applicable Acts.

The ECO also encourages MNR to develop a strategy for the Great Lakes Heritage Coast in order to give further focus to its vision for this coastline. Through discussions with the public, MNR should clarify what protections there are against aggregate operations and other industries on Crown lands along the coast. The ministry should not wait until future proposals emerge for similar large aggregate projects along the GLHC before launching this important public debate. *(For ministry comments, see page 216.)*

Encouraging Brownfield Redevelopment: Ontario Regulation 153/04

The National Round Table on the Environment and the Economy defines brownfield sites as "abandoned, vacant, derelict or underutilized commercial or industrial properties where past actions have resulted in actual or perceived contamination and where there is an active potential for redevelopment." In Ontario today, there are an estimated 3,900 brownfield sites – although some experts believe there may be twice as many. Three major elements of concern about the remediation and redevelopment of these sites have emerged over the past 15+ years, as provincial efforts continue to progress: liability, level of certainty, and accountability.

In October 2004, the Record of Site Condition Regulation (RSCR), O. Reg. 153/04, came into force under the *Environmental Protection Act (EPA)*. The RSCR is the latest step in provincial efforts to deal with these concerns in facilitating the remediation and redevelopment of brownfield sites.

The new regulation replaces the Ministry of the Environment's 1996 Guidelines for Use at Contaminated Sites with rules for assessing a contaminated site, determining appropriate cleanup standards, and reporting on site cleanup. The resulting information is documented in a Record of Site Condition (RSC) report that is filed on MOE's publicly accessible Brownfields Environmental Site Registry (www.ene.gov.on.ca/environet/BESR).

Filing an RSC is voluntary, but it does confer immunity from future MOE orders related to historic contamination of a property. However, immunity is suspended under certain circumstances:

- if there are any new contamination problems on the site.
- if existing contaminants create an emergency situation.
- if existing contaminants migrate off-site *after* an RSC is filed.
- if the RSC contains false or misleading information.

Under the new regulation, filing an RSC will become mandatory for redevelopment from a less to a more sensitive land use (e.g., from industrial to residential) as of October 1, 2005.

To file an RSC, an owner or developer must undertake a Phase I Environmental Site Assessment (ESA) to determine if a site is contaminated. If the property has been used for industrial or certain commercial activities, a Phase II ESA must be completed to determine the concentration and location of any contaminants. If required, the property developer must remediate to meet site condition cleanup standards for the proposed land use as set out in the RSCR. Where these site condition standards can't be met, a risk assessment can be completed to establish site-specific standards that protect human health and the environment. The RSCR also allows MOE to issue certificates of property use that can require additional monitoring or restrict site uses. On June 22, 2005, MOE posted a notice to amend O. Reg. 681/94 under the *EBR* to add certificates of property use as Class II instruments.

The RSCR also defines "qualified persons" for the purpose of undertaking or overseeing ESAs and risk assessments and then certifying the RSCs. For the most part, these qualified persons are deemed to be professional engineers, geoscientists, chemists, agrologists, and technologists in the field.

Public participation and the *EBR* process

MOE received 459 comments on the proposal for the RSCR on the Environmental Registry, and more than 100 stakeholders attended a workshop on the regulation. Most comments came from professionals involved in site remediation work. Some expressed concerns that government requirements for qualified person status were too restrictive, while others felt they were too liberal. Legal experts argued that the regulation does not provide developers with adequate protection from liability risks. Municipal stakeholders also argued that they remain vulnerable to liability risks under the regulation.

ECO Comment

The RSCR represents another positive step in MOE's ongoing efforts to facilitate brownfield redevelopment in Ontario. The regulation enhances the level of certainty and accountability in the process and further reduces the burden on proponents involved in brownfield redevelopment projects.

However, the ECO remains concerned about some of the most serious liability risks associated with brownfield redevelopment. The regulation fails to address the issue of the liability risks faced by current site owners having to do with any off-site migration of historical contamination once an RSC is filed. Further, it fails to provide significant protection to brownfield owners from potential civil litigation claims because of contamination problems arising either on or off-site. Other jurisdictions in North America such as New Jersey have made strides in reducing liability risks under carefully specified circumstances. The ministry should examine these approaches to determine whether they could be adopted in Ontario.

Positive steps have been taken to make RSCs accessible to the public, but the ECO believes it is critical that MOE develop comprehensive requirements for informing and involving the public in brownfield redevelopment initiatives in order to make the entire process transparent. Experts with extensive experience in brownfield redevelopment have repeatedly pointed out that the most successful projects are those that effectively engage the public in all phases of redevelopment. Clear and comprehensive requirements for involving the public have yet to be developed by MOE.

Further, while MOE's decision to define qualified persons is positive, it is unclear why the RSCR fails to recognize biologists and other professionals who have been active in site remediation work as being qualified to complete ESAs. While it is desirable for these technical experts to possess statutory professional designations, the ECO hopes that MOE has not allowed this to supercede the goal of recognizing individuals with experience and qualifications as being qualified to undertake ESAs.

It is encouraging to see that incremental progress is being made toward the creation of a regulatory environment more conducive to brownfield redevelopment. The RSCR is likely to enhance provincial efforts to encourage urban intensification and revitalization, in spite of the significant shortcomings described above. The ECO strongly encourages the province to continue its progress toward a full suite of effective tools to facilitate the re-use of brownfield sites in Ontario.

(A detailed review of this decision can be found on pages 85-95 of the Supplement to the annual report.) *(For ministry comments, see page 216.)*

The Orillia MURF Brownfield Experience

In the summer of 2004, an intense controversy erupted in the City of Orillia over the redevelopment of a brownfield site into a municipal multi-use recreational facility (MURF). A foundry once operated at the site, leaving soil and groundwater impacted by organic and inorganic chemicals. The municipality acquired the brownfield site in 2002 and began planning for the construction of a complex that would include everything from playing fields to a public library. However, as remediation of the site proceeded, it became clear that there were community members who were dissatisfied with the amount of information and level of consultation being offered by the municipality.

The site redevelopment was initiated under the 1996 Guidelines for Use at Contaminated Sites, the predecessor to the new Records of Site Condition regulation. These guidelines offered more direction than the new regulation regarding public consultation, but still proved to be inadequate. For example, the public was not made openly aware of the fact that there was a certificate of prohibition on part of the brownfield site under s. 46 of the *Environmental Protection Act* – in place because of the presence of an old industrial landfill. *EPA s.* 46 prohibits any use of lands, without approval of the minister, that have been landfilled within the last 25 years. This prohibition came to public light only in February 2005, when concerned community members brought this situation to the attention of the media. MOE subsequently reminded the municipality of the prohibition restricting development on this portion of the MURF site until 2011.

The perceived lack of information and lack of consultation has generated concern and suspicion within the community. To emphasize their concerns, two local residents filed an *EBR* application for investigation and an application for review in September 2004. Both applications focus on the certificate of approval (C of A) for Orillia's Kitchener Street landfill, because approximately 40,000 tonnes of soil from the MURF site was destined for the landfill. The application for investigation, denied by MOE, alleges that MURF soil, if deposited at the landfill, would be contaminated and therefore fail to comply with the landfill C of A. (For a full ECO review, see the Supplement, page 248.) The application for review requests that MOE revisit and strengthen specific conditions of a 1992 C of A, including the conditions prohibiting the deposition of hazardous waste and allowing for emergency disposal of contaminated material from spills at the landfill site. MOE has agreed to undertake a review of the entire C of A, citing concerns about increasing levels of contaminants in ground and surface water at the site. Another local resident filed an application for a court injunction to prevent the excavation and deposition of MURF soils at the landfill. Some citizens have also called for the province to undertake an environmental assessment of the MURF site redevelopment plans.

While the cleanup of the MURF site was initiated before the RSCR came into force, the City of Orillia has voluntarily committed to following the requirements of the new regulation, submitting the required risk assessment pre-submission form in December of 2004. MOE responded in March 2005, highlighting concerns such as the need for additional sampling in order to characterize the problems at the site properly. Further, MOE is requiring that the city develop a public communication plan as part of the risk assessment process. This requirement is the direct result of the fact that the MURF site is one of several contaminated properties in the area – a wider area of abatement – the only situation under the new RSCR where a public communication plan is mandatory.

The Orillia MURF case offers a prime example of the importance of providing the public with information and opportunities to participate in all phases of a brownfield redevelopment project. Further, the case speaks to the critical need for MOE to establish clear and mandatory public information and consultation requirements to accompany brownfield legislation so that every brownfield redevelopment project includes mandatory public communications requirements.

(For ministry comments, see page 216.)

Bill 49 – *Adams Mine Lake Act*

Background

On June 17, 2004, Bill 49, the *Adams Mine Lake Act (AMLA)*, came into force, closing the door on one of the most controversial proposals for the disposal of the City of Toronto's waste – the dumping of 20 million tonnes of solid, non-hazardous waste into Adams Mine near Kirkland Lake for a proposed 20-year period. The mine had been an iron ore mine, and when ore was no longer being extracted, the pits flooded and the site became known to some local residents as the Adams Mine Lake. Notre Development Corporation purchased the site in 1989 with the intention of using the abandoned iron ore pits as landfill sites.

The *AMLA* prohibits the disposal of waste at the Adams Mine site and revokes the approvals and agreements that had been granted in the late 1990s by the government for the use of this site.

Under the new Act, the province has agreed to pay the previous and current owners of the Adams Mine site, Notre Development Corporation and 1532382 Ontario Inc., respectively, for out-of-pocket expenses related to the development of the landfill site. *AMLA* also prevents legal action being taken against the Crown as a result of this legislation.

Bill 49 also amends s. 27 of the *Environmental Protection Act (EPA)* to prohibit anyone from using, operating, establishing, altering, enlarging or extending a waste disposal site where waste is deposited into a lake that is at least one hectare in area, including a lake that results from human activities and that is directly influenced by or influences groundwater.

Implications of the decision

For the medium term (1-3 years), the *AMLA* has ended any further consideration of the Adams Mine as a waste disposal site and provided the site owners with compensation for expenses. For many opponents of the Adams Mine disposal site, this decision has provided closure to a fight that began over 15 years ago. However, future Ontario governments may consider repealing the *AMLA*. In addition, it is unclear how this decision will affect projects such as the proposed confined disposal facility in Hamilton, which involves disposal of contaminated sediment within a structure in the waters of the harbour. Meanwhile, the City of Toronto continues to look for landfill sites and other disposal options.

Public participation & *EBR* process

Bill 49 was posted on the Environmental Registry for the minimum notice period of 30 days, during which time MOE received only three submissions. All three *EBR* commenters were concerned that the definition of "lake" included storm water ponds, mine tailings facilities, leachate management facilities and other "lakes" that have been created by human activities. They note that landfill operations associated with these types of "lakes" are common in Ontario and are operating with the approval of the government, but that with the enactment of this legislation, operators would either have to cease operations immediately or build new facilities. Prior to final passage of Bill 49, the Ontario government clarified that the definition of a lake did not include large ponds for the management of storm water or a waste disposal site on which there was a lake that was in no way related to waste management operations.

ECO Comment

The proposal to use the abandoned pits at the Adams Mine as a landfill site for the City of Toronto's solid waste has been a controversial issue in Ontario since 1989. Since this proposal was approved under the *EAA*, the ECO has limited authority to comment, because most government decisions made under this Act are exempted from the *EBR*. However, the ECO has reviewed the relationship between the *EAA* and the *EBR* and identified a number of gaps related to public participation rights. (For additional information, refer to the 2003/2004 ECO annual report, pages 52-59.)

The *AMLA* continues the piecemeal approach to waste management issues in Ontario that the ECO wrote about last year. (For additional information, refer to the 2003/2004 annual report, pages 78-85.) The ECO continues to urge the Ministry of the Environment to develop a provincial waste management strategy that addresses not just diversion, but also disposal capacity. While the ECO agrees that diversion efforts should be given priority, there is a current and ongoing requirement for municipalities to dispose of waste in an environmentally appropriate manner.

Pretreatment of Hazardous Waste: Development of a Regulatory Framework

Since December 2001, the Ministry of the Environment has been consulting on its plans to strengthen the management of hazardous waste in Ontario by prohibiting the land disposal of untreated hazardous wastes, including landfilling, landfarming, injection well disposal, and other on-land and in-land methods. In a media release issued at that time, the previous government announced its plan to establish new treatment standards for hazardous waste that are "at least as tough as those in the United States." In November 2003, the current government indicated its intention to do the same.

"Land Disposal Restrictions (LDRs)," as they are known in the U.S., are based on the principle that if technologies are available to render hazardous waste destined for land disposal less toxic or mobile, they should be employed. According to MOE, approximately 30 per cent of the hazardous waste generated in Ontario, and a portion of the hazardous wastes imported into the province, are land disposed in the province.

Ontario had already adopted a key component of the U.S. approach to the regulation of hazardous waste in October 2000, when MOE amended Regulation 347 R.R.O., 1990, under the *Environmental Protection Act (EPA)*, Ontario's primary hazardous waste regulation, to put in place the U.S. system for *identifying* and *classifying* hazardous waste (for further information, refer to page 103 of the ECO's 2000/2001 annual report).

As indicated in the table below, MOE posted three notices on the Registry during a four-year period to consult on proposals for an LDR program for Ontario.

Consultation Document	Type of Registry notice used	Date proposal was posted on Registry	Date decision was posted on Registry	Comment period	Number of Comments Received
Discussion Paper	Policy notice	December 2001	March 2004	90 days	23
Framework Document	Information notice	July 2004	No decision or update posted	9 days	6
Revised Regulation 347	Regulation notice	September 2004	No decision posted as of August 2005	94 days	Not yet reviewed

Listed and Characteristic Wastes. Under Regulation 347, wastes are deemed hazardous either because they are specifically listed in a schedule to the regulation ("listed wastes" such as PCBs and benzene) or because tests, set out in the regulation, show that the waste is ignitable, corrosive, reactive, or "leachate toxic" ("characteristic wastes"). Leachate toxic waste is hazardous waste that is likely to leach contaminants into groundwater.

This article reviews MOE's decision of March 2004 to proceed with the *development* of an LDR program for Ontario but *not* the program itself, since revisions to Regulation 347 detailing the new LDR rules were not finalized until August 2005. In preparing this article, the ECO also reviewed the comments received on MOE's information notice of July 2004, since MOE took the unusual step of providing a public comment period with this notice.

MOE's December 2001 discussion paper proposed that Ontario's LDR program apply to both *listed* and *characteristic* hazardous wastes subject to Regulation 347 (but not to wastes discharged to municipal sewers or to household hazardous wastes). MOE proposed to apply the requirements to all subject hazardous wastes land disposed on-site at private facilities and off-site at commercial facilities, defining land disposal to include landfilling, landfarming, injection well disposal, and other on-land and in-land methods. MOE indicated that pre-treated *listed* hazardous waste would have to be disposed in hazardous waste landfills, but that pre-treated *characteristic* hazardous wastes could be disposed in non-hazardous waste landfills.

Landfarming is the biodegradation of petroleum refining wastes by naturally occurring soil bacteria, by means of controlled application to land, followed by periodic tilling to provide mixing and encourage biodegradation. **Injection wells** are holes bored or drilled into porous formations of rocks, such as sandstone or shale, which are used for the underground storage of fluids.

MOE's July 2004 framework document clarified that the ministry intended to include a prohibition on the dilution and restrictions on the storage of hazardous waste and to implement the less stringent U.S. alternative treatment standards for contaminated soils and debris, so as not to discourage contaminated site remediation. MOE outlined notification, certification and reporting requirements, and conveyed its plan to address special cases by granting exemptions through a certificate of approval process.

In its September 2004 regulation proposal, MOE also proposed to exempt small quantity generators, as is done in the U.S.

Two key aspects of MOE's proposal changed during consultation phases:

- MOE originally proposed to adopt only the U.S. Universal Treatment Standards (UTS), a list of numeric concentration limits for constituents of hazardous waste in post-treatment residues ("contaminant-based" standards), stating that the UTS would be simple to implement. However, in its 2004 framework document, MOE proposed instead to adopt the multiple lists of standards in place in the U.S. that include both contaminant-based and "technology-based" (i.e., prescribe the use of specific technologies) standards.

- MOE increased its proposed implementation timeline for inorganic and organic wastes from within one and two years respectively after filing the regulation (December 2001 proposal) to within two and three years respectively of filing (September 2004 regulation proposal).

In its December 2001 proposal notice, MOE stated that an LDR program would benefit Ontario's environment by decreasing the concentration and quantity of some hazardous wastes going to landfills; decreasing the quantity of hazardous waste entering the province, particularly from the U.S.; and providing incentive to Ontario industries to generate less waste. MOE predicted that an LDR program would provide economic opportunities for businesses to develop appropriate pre-treatment technologies, but noted (in its third Registry notice about the program) that costs to generators would be substantial.

ECO Comment

The ECO is pleased that MOE has made progress in developing a land disposal restriction program for Ontario to strengthen the province's rules for the handling and disposal of hazardous wastes.

However, the ECO believes that MOE could have better outlined its rationale for the program by discussing the risks the ministry perceives in current land disposal practices, particularly landfarming. MOE should have responded to the concerns raised by the petroleum industry, which argues that landfarming does constitute pre-treatment – i.e., that it is a technology that renders hazardous waste destined for land disposal less toxic (see Landfarming, this page).

In addition, MOE should have provided relevant background information about hazardous waste in Ontario, including information on current quantities by type and fate, particularly quantities land disposed through landfilling and landfarming. MOE could have also outlined time and regional trends in domestic generation, ideally at the outset of public consultations in December 2001. Many commenters expressed frustration at the dearth of basic information about hazardous waste generation in the province (for a complete summary of public comments, refer to pages 71-80 in the Supplement to this report). The ECO has observed the need for better information about the generation and management of hazardous waste in the province in the past and encourages MOE to consider whether it is collecting the information necessary to provide the kind of aggregated data and analyses described above.

It is clear that MOE has taken a highly consultative approach to the adoption of an LDR program and that MOE has been responsive to input from commenters, particularly industry (e.g., by revising implementation timelines). However, MOE should have employed a regular policy proposal notice to consult on its July 2004 framework document, not an information notice with a short comment period (for a discussion of why, see our 2001/2002 annual report, pages 23-24). A number of stakeholders raised concerns about this use of the Registry.

The ECO also believes that MOE's Registry notices and documents should have specifically highlighted the key proposed changes and new information regarding the design and implementation of the program from one phase of consultation to the next. Moreover, MOE should have explained how it had considered and dealt with many of the concerns raised by commenters, including those of environmental groups about incineration. The ECO plans to review the finalized LDR regulation, as well as the ministry's use of the Registry to consult on it, in a future report.

(For ministry comments, see page 216.)

Wind Power Development on Crown Land

The Ontario Government has committed to increasing the amount of electricity generated within the province by wind or other renewable forms of energy, to 5 per cent by 2007 and 10 per cent by 2010. To meet this commitment, the Ministry of Natural Resources has created a new policy, Wind Power Development on Crown Land, that outlines the process and conditions by which Crown land may be made available to proponents of wind turbine-based, electricity-generating projects. Approximately 87 per cent of the provincial land base is owned by the Crown, with land in northern and central Ontario extensively Crown-owned. Thus, MNR's policy opens a vast land area for wind power exploration and potential development, which will assist the government in meeting its renewable energy target.

According to MNR, "commercially viable wind farm sites are generally known to be located along the north shore of Lake Superior, the James Bay lowlands and off-shore in the Great Lakes. Most of these sites are Crown lands." Some Great Lake locations, e.g., the shorelines of Lakes Erie and Huron, are considered particularly desirable since they are close to transmission lines and electricity markets, which reduces both the need for new lines and line losses of electricity over great distances.

MNR's new policy will help in realizing these opportunities, since it provides a standardized, orderly, predictable process to allow for wind power development on Crown land in Ontario. MNR was diligent in drafting the policy and procedures, using a step-by-step staged approach to cover most foreseeable situations, including the resolution of disputes that arise when two or more applicants want to use the same tract of land.

The policy involves a two-stage process for the release of lands. The first stage, "Site Release for Exploration (Option Period)," governs the period during which a site is being tested to determine its wind power potential and feasibility for generating electricity. The second stage, if initial testing proves positive, would be "Final Allocation (Lease Period)," which would cover aspects of the disposition of lands for a longer-term lease period so that wind turbines and associated equipment could be installed on site. MNR also devised a fee schedule for the use of the lands and resources in each of the periods (see the Supplement, pages 185-190).

MNR's new policy and procedures are similar to a mineral exploration process, in which land is made available for site testing, which then could lead to the development of a mine. But MNR's policy and procedures form only part of the screening and approvals process to site one or more wind turbines, since the policy does not provide the details of how projects will be assessed for their environmental impacts. For this, MNR relies on existing processes under the *Environmental Assessment Act*, including the Class Environmental Assessment for Resource Stewardship and Facility Development and the Environmental Assessment Requirements for Electricity Projects.

One issue that was not explicitly dealt with in the policy document is whether wind turbines are permitted or banned in provincial parks and conservation reserves. However, in a procedure document available separately through an MNR Web site, the ministry included a prohibition on wind turbine placement in provincial parks, conservation reserves and certain other protected areas. The ECO notes that development projects in parks and conservations areas are frequently a source of conflict with recreation and nature enthusiasts, and that such an important consideration deserves to appear directly in the policy document.

Public participation & the *EBR* process

Two organizations commented on this proposal – the Canadian Wind Energy Association (CanWEA) and the Niagara Escarpment Commission (NEC). Despite the small number of commenters, numerous issues were raised. MNR made several changes to the proposal to meet some of the concerns CanWEA had about the process and fees involved (see the Supplement to this report). The Niagara Escarpment Commission contended that wind turbines were not compatible with the environmental and scenic resources of the Escarpment; this issue remained unresolved at the time of MNR's decision, since the ministry was awaiting NEC's final position on wind power projects.

MNR reported that ministry staff involved with the protection of fisheries, parks and protected areas also raised issues specific to their program interests, and that detailed procedures might be required for review of certain wind turbine applications. Then, in 2004, MNR informed the ECO that district offices were being supplied with guidelines and criteria to assess wind power proposals, that the ministry was working with the federal department of Fisheries and Oceans on fishery issues, and that a procedure, PL.4.10.04, dealt with the parks and protected area issue.

The ECO predicts that other concerns with process and public participation regarding this policy may crop up in the future. Members of the public could question the impartiality of MNR in its role as legitimate rule enforcer and regulator when reviewing wind proponent applications, since the ministry is also actively promoting this industry. Also, if prime wind resources are located in an area where wildlife could be highly sensitive to a wind power installation, both MNR and the Ministry of the Environment may find it difficult to restrain development – since the province has declared that it wishes to promote wind power. Finally, MNR's multi-document approach for dealing with access to Crown land for wind power development (including a policy, a procedure, and links to other policies and processes) was somewhat more confusing and complex than it should have been for users and the public. And maps of Crown land and strong wind areas in Ontario were absent altogether; these could have helped the public understand where the proposed policy would apply and where wind developments might arise.

ECO Comment

The ECO recognizes that it can be difficult to strike the right balance when trying to promote a resource development activity like wind power while attempting at the same time to extract fair return for services or land provided for the activity. MNR created its policy on the basis that the province should receive a reasonable financial return for land and services offered to the wind industry. But if the fees that MNR established prove to be too high, then fewer turbines might get built and the province's goal of renewable energy may not be met. Industry, in fact, has implied that the fees were too high relative to the risks and financial return. For these and other reasons it was prudent for MNR to build in an annual review of the policy (the first review date is April 19, 2005). If necessary, the fee structure could be revisited in future.

MNR should have more clearly and prominently provided an indication of areas of the province where wind turbine proposals would be considered inappropriate, so that industrial stakeholders could have greater certainty and the public more reassurance about sensitive natural areas. As mentioned, MNR could also have included a clear statement about the application of the policy within parks, conservation reserves and protected areas, as opposed to including this in the procedure. Stakeholders look to MNR for this type of information, since it is the only ministry with detailed natural resources information about the location of Crown land and the boundaries of parks and conservation reserves.

Based on the observations of wind power developments in other jurisdictions, the ECO believes that the environmental benefits of wind turbines generally outweigh their negative impacts. Factors that further limit the likelihood of major adverse effects in Ontario from wind power development include the relatively light "footprint" of turbine installations and the fact that only certain areas of the province are ideally suited for wind turbine placement. Still, extra caution must be exercised to avoid conflict with features such as wildlife migration corridors or the views of unique natural landscapes. Finally, if serious interference of wildlife were to occur at a certain site, the possibility exists of removing the installation and restoring native conditions, even though there will be financial or contract implications. *(For ministry comments, see pages 216-217.)*

Bill 100: ENG Restructures the Electricity Sector

The years 2004 and 2005 have been a time of significant change in Ontario's electricity sector. In addition to very high profile changes like the closure of the coal-burning Lakeview Generating Station, there have also been significant structural and institutional changes. In June 2004, the Minister of Energy introduced Bill 100, the *Electricity Restructuring Act (ERA)*. The use of the term "restructuring" in the title of the new law is apt, since the law introduces approaches new to Ontario for the management of electricity supply and demand, and it substantially restructures the electricity marketplace and system governance. Following are some of the key elements of the *ERA*:

The creation of the Ontario Power Authority (OPA)

This agency will be responsible for ensuring the adequacy of Ontario's electricity supply over the long term. The agency will assess Ontario's electricity needs and resources and enter into contracts to purchase electricity and manage electricity demand. Though an independent agency, the OPA will be subject to directives from the Minister of Energy and will need to seek approval for many of its operations from the Ontario Energy Board (OEB).

Creation of a Conservation Bureau

The *ERA* created a Conservation Bureau within the OPA, headed by a Chief Energy Conservation Officer. The Bureau will plan and coordinate electricity conservation and demand management measures and monitor and report on Ontario's progress in achieving conservation targets.

New price-setting mechanism and rate plan

The *ERA* will change the way the price of electricity is set in Ontario. Electricity prices will be set in two ways. Part of Ontario's electricity supply will be price-regulated by the Ontario Energy Board. The price of another part of the supply will be governed by paid contract or competitive market prices. The *ERA* will also establish a new annual rate plan for small-volume and other consumers. Homeowners and small businesses will pay a blended price based on regulated contract and forecasted market prices. This blended price will be adjusted by the Ontario Energy Board.

OPG hydro-electric project given green light

Ontario Power Generation (OPG) will continue to be a dominant player in Ontario's electricity market in the years ahead. The *ERA* granted OPG (the only utility named in the Act) unfettered authority (e.g., to expropriate lands as necessary) to develop a hydro-electric generation project on the Niagara River.

Public participation & the *EBR* process

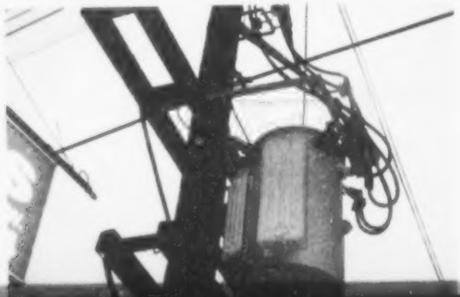
The *ERA* was the subject of considerable consultation since its introduction in the legislature in June 2004. In addition to being posted as a proposal on the Environmental Registry for a 45-day comment period, the Ontario Legislature's Standing Committee on Social Policy held hearings on the proposed law over the summer of 2004. On December 9, 2004, the *ERA* received Royal Assent.

During the *EBR* comment period, three comments were received on ENG's *ERA* proposal. ENG reported that the comments were generally positive and that many stakeholders advocated legislating a progressive increase in the generation of electricity from renewable energy sources. ENG responded that the *Electricity Restructuring Act* granted the minister the authority to issue directives to the OPA that set out the "production of electricity from particular combinations of energy sources and generation technologies," and that the Ontario Power Authority shall be required to follow these directives in preparing certain plans. ENG's reporting of the comments was generally accurate, but far too brief – commenters also had very specific concerns and recommendations (see the Supplement, pages 48-58). For example, commenters had concerns about how renewable and alternative energy was defined in the Act, which in turn could have a major impact on how related targets are met. Also, ENG did not explain clearly the effect of these comments on its decision, that is, what changes if any were made to the legislation to accommodate commenters' suggestions.

ECO Comment

The *Electricity Restructuring Act* has been the most significant restructuring of Ontario's electricity system since the *Energy Competition Act* of 1998. In some ways, the *ERA* restarted the evolutionary process of 1998 – a process begun, then shut down, by the previous government. That first effort attempted to move the sector away from the longstanding model of a single state-owned monopoly, Ontario Hydro, to one with a greater role for private generators and a more balanced public-private composition. The system following the *ERA* should result in more generators in the system and more flexibility in how demand for electricity is met (i.e., through new supply or conservation). However, the *ERA* does not place as much emphasis on marketplace competition to control prices as the structuring in the late 1990s intended to do. Also, Ontario Power Generation and Hydro One will remain dominant players in Ontario's electricity sector in the years ahead. And many aspects of the new system continue along the lines of a "command and control" model, with ENG, the OEB and the new OPA as principal decision-makers.

The ECO cautiously welcomes some of the *ERA* directions, though many details remain to be worked out through the myriad regulation-making provisions of the legislation. Also unknown at this time is how successful the Conservation Bureau will be at promoting electricity conservation. Historically, large utilities like Ontario Hydro and OPG have turned to more generating capacity to meet a growth in demand, rather than implementing conservation measures. For conservation to predominate, the OPA should be structured to report to the Chief Energy Conservation Officer, rather than vice versa. Also concerning conservation, *ERA* amendments were structured to *allow*, but *not require*, that transmitters and distributors offer energy conservation services. Strong legislation or financial incentives are needed to bring about energy conservation. It is unlikely to result on a purely voluntary basis in a marketplace with relatively low energy prices. ENG should specify more clearly how electricity transmitters and distributors are expected to contribute to conservation in the years ahead.



The ECO believes that the OPA could play a vital role in the reliability of Ontario's electricity system. A factor behind the electricity shortage in the state of California in 2000/2001 was the lack of a central agency to bring new electricity or conservation online in a timely fashion. The OPA should be able to prevent electricity shortages from occurring in Ontario by analysing the system and recommending new generating capacity or conservation well before critical shortages arise and brown-outs occur.

One of the directions in the *ERA* is intended to ensure that market participants will, in time, pay the true cost of electricity. Time will tell whether the market price of some forms of electricity will reflect their true cost. For many years, the cost of OPG's nuclear program, particularly reactor refurbishment, has been subsidized by the taxpayers of Ontario. This, in turn, meant that the price of nuclear-generated electricity in Ontario did not reflect its full cost. Some analyses indicate that the real cost of some nuclear-generated electricity in Ontario could be much higher than the rate of 4.7 cents per kilowatt-hour charged to low-volume consumers in Ontario at the start of 2005. Governments have been reluctant to ensure that the full cost for electricity is charged because of consumer reaction. Nevertheless, any effort to bring the price closer to the true cost could encourage conservation and create a more balanced and efficient electricity marketplace. And while the *ERA* will likely lead to higher prices, on average, paid by consumers for electricity, the increases applied or foreseen up to mid-2005 were not of a magnitude to cause distress for most residential consumers.

Finally, the ECO believes that enshrining longer-term renewable and conservation targets in law is sensible. As it stands, the province is already attempting to achieve its "Renewable Portfolio Standard" target, which entails bringing online new renewable sources, so that 5 per cent (or 1,350 megawatts) of all generating capacity in Ontario is based on these new sources by 2007, and 10 per cent (or 2,700 megawatts) by 2010. To foster renewable energy further in the province, ENG should examine the process by which generators gain access to the transmission grid, ensuring that it is fair and reasonably affordable for smaller generators and renewable-based generators. The ECO will continue to monitor future electricity system developments in Ontario.

Recommendation 8

The ECO recommends that ENG establish more substantial targets for the generation of electricity from renewable energy sources, consulting the public on the longer term.

Environmental Protection Requirements for Highway Projects

Description

In August 2004, the Ministry of Transportation finalized a summary of the numerous federal and provincial environmental rules that currently apply to highway projects in Ontario, entitled "Environmental Protection Requirements for Transportation Planning and Highway Design, Construction, Operation and Maintenance" (EPR summary).

The 17-page EPR summary is an early step of a much larger project initiated in 2002 called the Environmental Standards Project, which is intended "to improve the way the ministry assesses environmental risk and controls the environmental impacts resulting from its activities." Under this banner, MTO plans to publish or finalize several further key documents in 2005:

- Environmental Protection Requirements: Oak Ridges Moraine (proposal posted Aug. 23/04)
- Environmental Best Practices for Highway Design
- Environmental Best Practices for Highway Construction
- Measures For Environmental Performance

MTO hopes this exercise will bring several benefits, including more timely completion of projects, better relations with the public and other agencies, and improved environmental stewardship.

The ECO has a strong interest in this MTO project because our office has heard many concerns in recent years about the environmental impacts and inadequate public consultation related to highway projects. For example, the ECO's 2003/2004 annual report described a highway construction project where environmental protection and mitigation work was not carried out as required by the environmental assessment approval. (See also Environmental Impacts of Highway Construction Practices, page 109.)

Content of the EPR summary

The EPR summary is MTO's interpretation of how the existing regulatory regime – including the Provincial Policy Statement (PPS) under the *Planning Act* – applies to highway and road projects. The document reveals a major disconnect between the environmental rules constraining most kinds of development and the approach taken for highway projects. For example, although the 2005 PPS states that development and site alteration will not be permitted in provincially significant wetlands across a broad swath of Ontario or in significant habitat of endangered and threatened species, the EPR summary indicates that such activities can be permitted for highway planning and construction activities if they are approved under the environmental assessment (EA) process. Specifically, the EPR summary indicates that the encroachment on significant portions of the habitat of threatened and endangered species and the loss of wetland features and functions could both be approved through the environmental assessment process, in spite of the new 2005 Provincial Policy Statement.

The EPR summary does acknowledge that MTO projects must avoid habitat of species designated by regulation under the Ontario *Endangered Species Act*. However, as noted on page 149, only about one quarter of the species currently listed by MNR as Species at Risk in Ontario are actually regulated under this Act. The EPR summary also asserts that many other potentially environmentally damaging activities could be approved under MTO's environmental assessment processes, including:

- encroachment on significant woodlands and significant valleylands, including woodlands providing habitat for area sensitive species.
- encroachment on designated areas such as national and provincial parks, World Biosphere Reserves, Provincially Significant Areas of Natural and Scientific Interest, etc.
- the reduction in diversity of wildlife habitat and the loss of natural connections between habitat areas.

MTO's approach to surface water protection

According to MTO's interpretation, the numerous laws and policies applicable to surface water protection can be boiled down to the following common language: surface water values are to be protected or potential damage mitigated "to the extent that is technically, physically and economically practicable, as defined through the Environmental Assessment approval process." This suggests that the environmental assessment approval process is able to trump all other legislative requirements that might otherwise apply. For example, although the federal *Fisheries Act* uses very clear language to prohibit the discharge of a deleterious substance into water frequented by fish, MTO has evidently determined that this applies only insofar as it is "technically, physically and economically practicable."

Implications of the decision

Although the *EPR* summary does not intend to set new policy for MTO, it does raise at least three important questions.

Environmental Impacts of Highway Construction Practices

The ECO's 2003/2004 annual report highlighted a case of environmental damage during the construction of an MTO highway in the Muskoka region. But this was not an isolated case. Because of inadequate or even nonexistent compliance monitoring, carefully drafted commitments to environmental protection and mitigation can readily fall by the wayside during the construction phase of highway projects.

Even though a project may have originally budgeted for safeguards such as full-time on-site environmental inspectors, proper placement of silt curtains and proper disposal of waste and construction debris, there is strong pressure to take shortcuts on the ground in order to shave costs and to meet deadlines. While the resulting environmental damage is usually localized and of relatively small scale, it is also incremental and cumulative over the hundreds of highway projects under way each year in Ontario. It is also very hard to reverse damage to local wildlife and fish habitat, or to remediate areas where waste and construction debris have been piled or stream flow has been disrupted.

The federal Department of Fisheries and Oceans (DFO), which has a mandate to protect fish habitat, does carry out compliance monitoring of highway projects that have received DFO approvals. The DFO uses a principle that there should be no net loss of fish habitat, and requires proponents to compensate for any loss by creating new habitat of a comparable quality. In the Prescott area of Ontario, the DFO has recently intensified its compliance presence on highway projects in response to persistent problems. Measures include stronger reporting requirements, the daily presence of fish habitat inspectors on job sites, and stronger authority on job sites for environmental inspectors. However, in other areas of Ontario, the DFO has not adopted this intensive compliance approach. And as important, the DFO has a regulatory role only on projects where fish habitat has been identified. Where fish habitat is not an issue, the regulatory roles fall to MNR (wetlands, wildlife) and MOE (surface water, EA compliance), ministries that appear to do very little or no compliance monitoring of highway projects at the construction or post-construction phase.

DFO staff have described an urgent, widespread need for training of highway construction staff on how to prevent and minimize environmental damage during construction. Both MTO's own staff who tender and oversee construction projects, and the contract administrators and the contractors' workers who operate the machinery at the job sites, are in need of this training. Training standards that reflect the necessary skill sets for environmental inspectors also need to be developed and incorporated into MTO contracts. *(For ministry comments, see page 217.)*

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1. Does MTO's EA process have precedence over other environmental legislation?

Almost all of MTO's transportation projects are carried out under the umbrella of the MTO Class Environmental Assessment (Class EA). But as outlined on page 114, the MTO Class EA states quite clearly that it is not intended to replace or supplant other environmental legislation. Furthermore, while the Class EA does list "environmental protection principles," it does not contain any specific prohibitions or constraints that are in any way comparable to the *Fisheries Act*, the *Environmental Protection Act* or other key laws. The *Fisheries Act*, in particular, clearly prohibits MTO from destroying fish habitat unless the ministry has received an authorization from the federal Department of Fisheries and Oceans. Approval through a provincial Class EA would not be an adequate substitute. Thus, it would be erroneous to interpret MTO's Class

EA as having primacy over other environmental legislation. The EPR summary is seriously flawed in conveying this interpretation and should be revised, especially since the intent of the document is to provide guidance.

2. How does the Provincial Policy Statement apply to MTO?

As detailed on page 41, the 2005 PPS fails to place many practical constraints on MTO because of the following exemption: the PPS defines "development" as *not including* activities that create infrastructure authorized under an environmental assessment process. In plain language, highways and similar infrastructure are not considered development, and therefore are not subject to the constraints that the PPS imposes on other kinds of development.

However, MTO's exemption from the PPS is neither overt nor absolute, since the *Planning Act* applies to Crown ministries. As evidenced by the EPR summary, MTO itself does acknowledge that the PPS is relevant, since it is cited in at least eight separate instances. The Ministry of Municipal Affairs and Housing clearly also takes the view that the PPS does apply to MTO, as shown by new language in the 2005 PPS, which states that:

> 1.6.6.4 When planning for corridors and rights-of-way for significant transportation and infrastructure facilities, consideration will be given to the significant resources in Section 2: Wise Use and Management of Resources.

3. How does other land use planning legislation apply to MTO?

Both the Greenbelt Plan, approved in 2005, and the Oak Ridges Moraine Plan, approved in 2002, follow the lead of the PPS: they both contain exemptions for transportation infrastructure, buried in their "definitions" section. This means that the status quo will continue to apply to highway planning. Critics argue that this will profoundly undermine land use planning reforms by allowing for the construction of transportation infrastructure through protected areas, thereby encouraging sprawl to leapfrog beyond the Greenbelt.

ECO Comment

The EPR summary is useful, since it clarifies how MTO interprets the prevailing environmental regulatory regime. At the same time, its legal interpretations do raise significant concerns, namely, that MTO apparently considers the environmental assessment approval process to have primacy over virtually all other environmental legislation and policy. In the view of the ECO, this approach is flawed and serves the environment very poorly. The prevailing planning approach seems to force proposed highway routes onto natural heritage lands because they alone are not shielded by any effective policy constraints and because other types of land are much more expensive to acquire. As a consequence, proposed highway routes sometimes seem to exhibit a pattern of connecting "green dots" on the landscape.

In light of the recent reforms to the *Planning Act* requiring that planning decisions be consistent with the PPS, and given that the PPS now states that transportation infrastructure planners are to consider significant natural heritage, MTO should reconsider these interpretations, in consultation with regulatory agencies and the public. Aside from this major concern, the EPR summary will need frequent reviews and updates as environmental rules are updated and strengthened.

... MTO apparently considers the environmental assessment approval process to have primacy over virtually all other environmental legislation and policy ... The prevailing planning approach seems to force proposed highway routes onto natural heritage lands because they alone are not shielded by any effective policy constraints ... As a consequence, proposed highway routes sometimes seem to exhibit a pattern of connecting "green dots" on the landscape.

MTO's overarching Environmental Standards Project is nevertheless a promising development that could focus the attention of MTO front-line staff and senior management on improvements needed in the way the ministry approaches environmental protection. The proposed "best practices component," if widely adopted by ministry staff and contractors, could advance MTO's environmental stewardship. Similarly, the "measuring environmental performance" component could help the ministry develop action plans and targets, which could foster buy-in among MTO's engineering staff and contractors.

The Environmental Standards Project could help to address some of the long-standing concerns with MTO's traditional approach to highway projects. But some of the project's bolder promises (such as a healthier environment and greater transparency) can be realized only if the ministry is open to real internal change. At a minimum, MTO would need to be willing to change some of its own internal processes, including its EA processes, and would need to provide intensive training for its planning and design staff and its construction engineers. Training for front-line workers of construction contractors is also a key need. The ECO will continue to monitor the rollout of this project. (A more detailed review of this decision is found on pages 214-219 of the Supplement.)

(For ministry comments, see page 217.)

The Class EA for Provincial Transportation Facilities

There are over 16,000 kilometres of highway overseen by the Ministry of Transportation, including the 400-series highways, arterial and collector roads, and any other roads not administered by municipalities. Each year, MTO's projects to repair, overhaul or expand these provincial highways use an average of 10-12 million tonnes of aggregate. This would be enough gravel, sand and crushed rock to create almost 300 kilometres of a new four-lane provincial highway each year. Of course, much of this work involves the repair and widening of existing roadways, as opposed to the creation of entirely new roads. Nevertheless, the ministry's projects involve the movement of vast quantities of earth and aggregates, using heavy machinery, and have great potential to cause localized environmental damage. Among other things, they can affect stream drainage patterns; cause sediment deposition to surface waters; damage wetlands, wildlife and fish habitat; block wildlife migration corridors; and fragment ecosystems.

What are Class EAs?

Ontario's *Environmental Assessment Act (EAA)* applies to projects undertaken by government, including highway projects, and sets out a decision-making process intended to promote the protection, conservation and wise management of Ontario's environment. Major projects subject to the *EAA* must undergo an individual environmental assessment (EA), but the *EAA* also allows streamlined approval processes, called Class Environmental Assessments (Class EAs), which are especially designed for certain groups of projects with shared, predictable characteristics. A Class Environmental Assessment document is a template of rules that can be applied to any activity caught in that class, and is often called a "parent Class EA" because it sets rules governing hundreds and possibly thousands of site-specific projects. Despite the importance of Class EAs, ministries have taken the position that Class Environmental Assessment documents are not subject to regular posting on the Environmental Registry as proposals under the *Environmental Bill of Rights*. Projects approved under a Class Environmental Assessment are typically managed by the proponent, and involve only limited monitoring by the Ministry of the Environment.

Projects covered by MTO's Class EA

MTO has been using a Class process to manage approvals for its projects for over 25 years, and since 1999, has been using the latest revised Class Environmental Assessment for Provincial Transportation Facilities as the basic approval process for planning, designing and building new highways, as well as expansions or alterations of existing provincial roadways.

Evaluating preferred alternatives

MTO's Class EA contains advice to planners on how to evaluate preferred alternatives for a site-specific project during the needs assessment stage. This advice is strongly biased toward roads and highways, and gives short shrift to other options such as rail, transit or demand management (strategies for more efficient use of transportation resources). For example, the advice regarding demand management is frankly dismissive: "Since this is a much broader public policy issue, it is typically not a reasonable project-specific 'alternative to' for addressing transportation problems/opportunities." This perspective filters down to site-specific projects. Citizen groups have raised concerns that a bias against traffic operations improvements, demand management, or high occupancy vehicle lanes also colours environmental study reports done for site-specific projects under the Class EA.

Key elements of MTO's Class EA

MTO's Class EA document is over 120 pages long, and while its language and structure may be suitable for professional transportation planners, it can be quite confusing and overwhelming for the general public. Those wishing to comment do need to navigate their way through this document, if only to decipher the rules governing the 30-day comment opportunities, since no fact sheet or guide booklet exists to ease this task. When members of the public ask the Ministry of the Environment for advice on how the MTO Class EA works, MOE refers them back to MTO.

Public consultation rights vary with scale of project

MTO's Class EA classifies projects into four different groups based on their scale and scope. On one end of the scale are the largest and most complex Group A projects (such as new highways and freeways), which receive the most extensive public consultation. On the other end of the scale are Group D projects (such as routine operation, maintenance and emergency response activities), which get no public consultation. The proponent has an option on whether or not to consult the public on Group C projects (such as minor increases in traffic capacity, minor widening of roadbeds, replacement of storm sewers or stormwater management facilities, and many other activities).

Under the Class EA process, there is no mechanism for formal hearings that might allow individuals or groups to challenge the proponent's information or project directions. However, at least for the larger Group A and B projects, members of the public do have certain 30-day windows during which to request that a given project be "bumped-up" to an individual environmental assessment. If a given project were to be bumped-up, it would be subject to a more formal review and approval process, including the possibility of a formal public hearing. But in practice, the Minister of the Environment has not granted any such bump-up request in the last five years, even though members of the public have requested bump-ups on about 25 per cent of eligible projects.

Principles laid out in the Class EA

MTO's Class EA contains several lengthy lists of "principles" relating to transportation engineering, environmental protection, public consultation and other issues. The document states that these principles "must be applied during the study process for Group A, B and C projects as stipulated." The 10 "environmental protection principles" are, in fact, mainly a mixture of process steps and qualifying advice offering MTO planners a great deal of discretion on how to "balance" environmental protection against engineering issues. Moreover, the principles convey a very strong sense that in any given case, the transportation project deserves first consideration over other factors such as the environment.

No intent to replace other legislation

Although MTO's 2004 summary document, "Environmental Protection Requirements" (EPR summary), suggests that the EA process has primacy over other laws (see page 108), MTO's Class EA contains clear and strong language to refute this interpretation. Indeed, the Class EA document emphasizes in its introductory pages that its ...

> ...process is part of a mechanism by which compliance with other environmental legislation may be achieved. However, the Class EA process does not replace or exempt the formal processes of other applicable federal, provincial and municipal legislation and municipal bylaws, such as permits/approvals and the specific public/agency consultation that they may require.

Thus, it appears that MTO is providing contradictory direction to ministry staff, contractors and the public. On the one hand, the recently finalized EPR summary infers that the EA approval process can supersede other environmental legislation on a case-by-case basis. On the other hand, MTO's Class EA clearly refutes this view.

How is the effectiveness of the Class EA monitored?

MTO's Class EA has no expiry date, so there is no trigger for the Ministry of the Environment (or any other regulatory agency) to undertake a formal periodic review of how well the environment is being protected under this process. However, MTO must submit a Monitoring Report to MOE annually, summarizing feedback from regulatory agencies on how the process has been working. So far, MTO has submitted three such reports, and they show that regulatory agencies do have substantive concerns. For example, Ministry of Natural Resources staff pointed out two years running that under MTO's Class EA process, "wetlands and important wildlife habitat are not being adequately protected."

> Although provincially significant wetlands are of provincial interest, [MNR is] not aware of any legislation in place to protect them other than the PPS. However, the PPS provides for an exception to infrastructure. . . . As such, it appears that the MNR would have no grounds to require MTO to protect a provincially significant feature such as a wetland and as such a vital component of environmental protection is overlooked.
>
> Outside of [MTO's Class EA] principles, in many instances it is stated that MTO will take all reasonable steps to avoid natural heritage features, however this never seems to be the case. MTO usually states that there are no alternatives available outside the natural heritage area, and as a result environmental protection does not occur.

MOE staff have similarly described their frustrated efforts to have adequate weight assigned to environmental considerations and have noted weaknesses in public consultation. Conservation Ontario (representing Conservation Authorities) raised similar concerns about the timing and value of public comment opportunities.

It is unclear how or even whether MTO or MOE are following up on these clearly stated concerns of experienced field staff, voiced repeatedly in three successive monitoring reports. Unfortunately, it appears that MOE directs its staff merely to read the monitoring reports and then place them on the public record. MOE, as the regulating agency, could be taking a much more active role, and could insist on improvements to the MTO Class EA process to better protect key environmental values. Indeed, the Class EA includes an amendment clause that can be invoked by MOE at any time, as well as a mechanism (thus far unused) for any third party to request amendments, subject to MOE's approval.

Among other things, MOE could insist that MTO's Class EA incorporate language more clearly supportive of transportation alternatives such as transit, rail and demand management. As well, the environmental protection principles espoused in the Class EA could be greatly strengthened to clarify that significant natural heritage features must be protected, and that MTO projects should be consistent with the spirit of the Provincial Policy Statement. MOE could also require amendments to ensure that concerns and mitigation recommendations submitted by commenting agencies on site-specific projects are given adequate weight and are resolved early in the planning process. Any amendment of the Class EA should take care to retain the existing clear requirements for compliance with federal and provincial environmental legislation, and for meeting the intent of government policies and protocols.

Beyond amendments to the Class EA document, MOE could examine and modify its own process of reviewing bump-up requests in order to provide requesters with some realistic probability of having a bump-up granted. At a minimum, MOE could collaborate with MTO on drafting a "user's guide" to help Ontarians understand their rights under the Class EA process. *(For ministry comments, see page 217.)*

Recommendation 9

The ECO recommends that MTO establish training programs for highway construction staff on how to prevent and minimize environmental damage during road construction, and also establish training standards for environmental inspectors.

Water Taking and Transfer Regulation

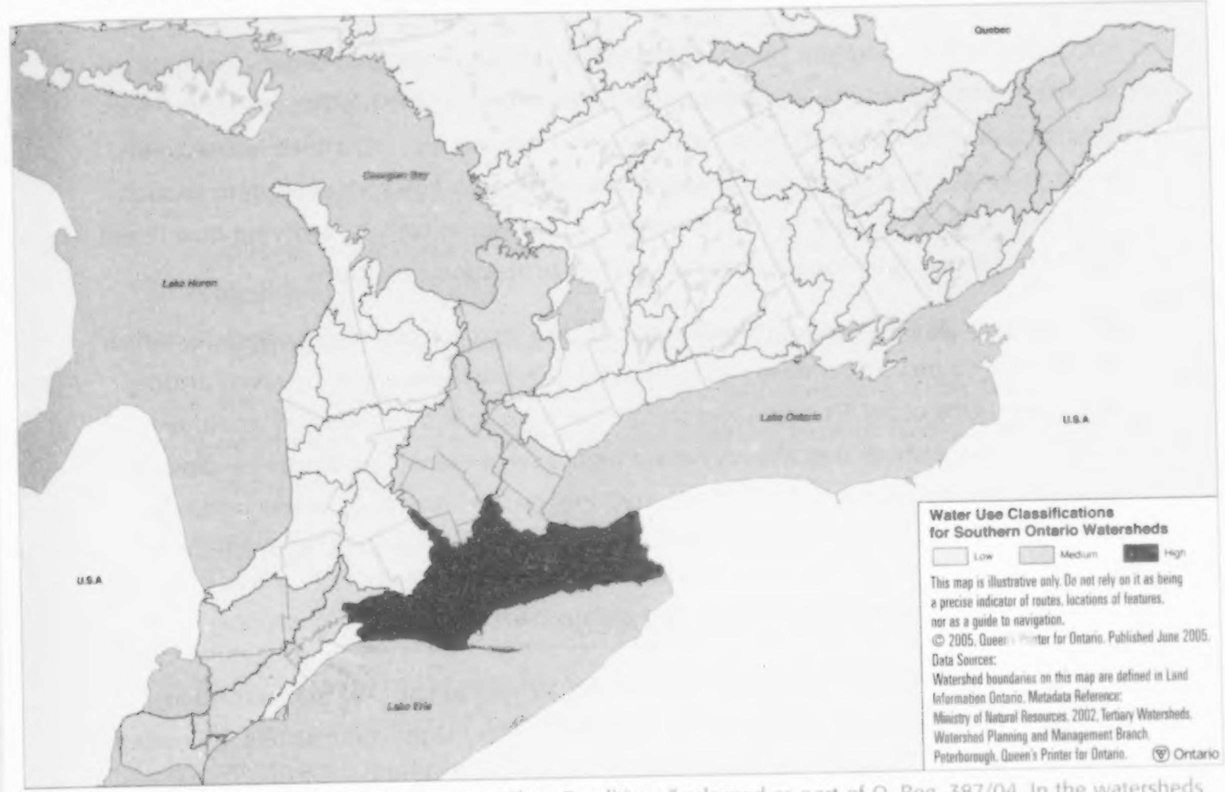
In December 2004, the Ministry of the Environment finalized O. Reg. 387/04, also known as the Water Taking and Transfer Regulation, under the *Ontario Water Resources Act*. This decision introduced long-awaited revisions to the rules governing large-volume water takings.

Permits to take water

Under the *Ontario Water Resources Act (OWRA)*, anyone taking more than 50,000 litres of water per day needs a permit to take water (PTTW) from MOE. Permits are issued for activities such as electricity generation, manufacturing, drinking water supply, agriculture, and quarry de-watering. The *OWRA* exempts firefighting, individual household use, direct livestock or poultry watering, and takings that predate 1961 from the PTTW requirement.

For the first time, permit holders will be required by regulation to monitor and report to MOE on quantities of water taken. The regulation also introduces new maps (see below) that designate Ontario's watersheds as high, medium or low water use. Certain industries, including water bottling, ready-mix concrete and other industries that incorporate water into their final products, will not be allowed new or expanded water takings in high use areas. Exempted from this ban are pulp and paper, ethanol production, and agricultural industries.

Restrictions on Water Takings


Quebec
Georgian Bay
Lake Huron
Lake Ontario
U.S.A
U.S.A
Lake Erie
Water Use Classifications for Southern Ontario Watersheds
Low
Medium
High
This map is illustrative only. Do not rely on it as being a precise indicator of routes, locations of features, nor as a guide to navigation.
© 2005, Queen's Printer for Ontario. Published June 2005.
Data Sources:
Watershed boundaries on this map are defined in Land Information Ontario. Metadata Reference:
Ministry of Natural Resources. 2002. Tertiary Watersheds. Watershed Planning and Management Branch. Peterborough. Queen's Printer for Ontario.
Ontario

This map* is based on "Water Use – Summer Low Flow Conditions," released as part of O. Reg. 387/04. In the watersheds designated as summer high use areas, new PTTWs will forbid water takings between August 1 and September 11 for water-consuming industries such as water bottling and juice production.

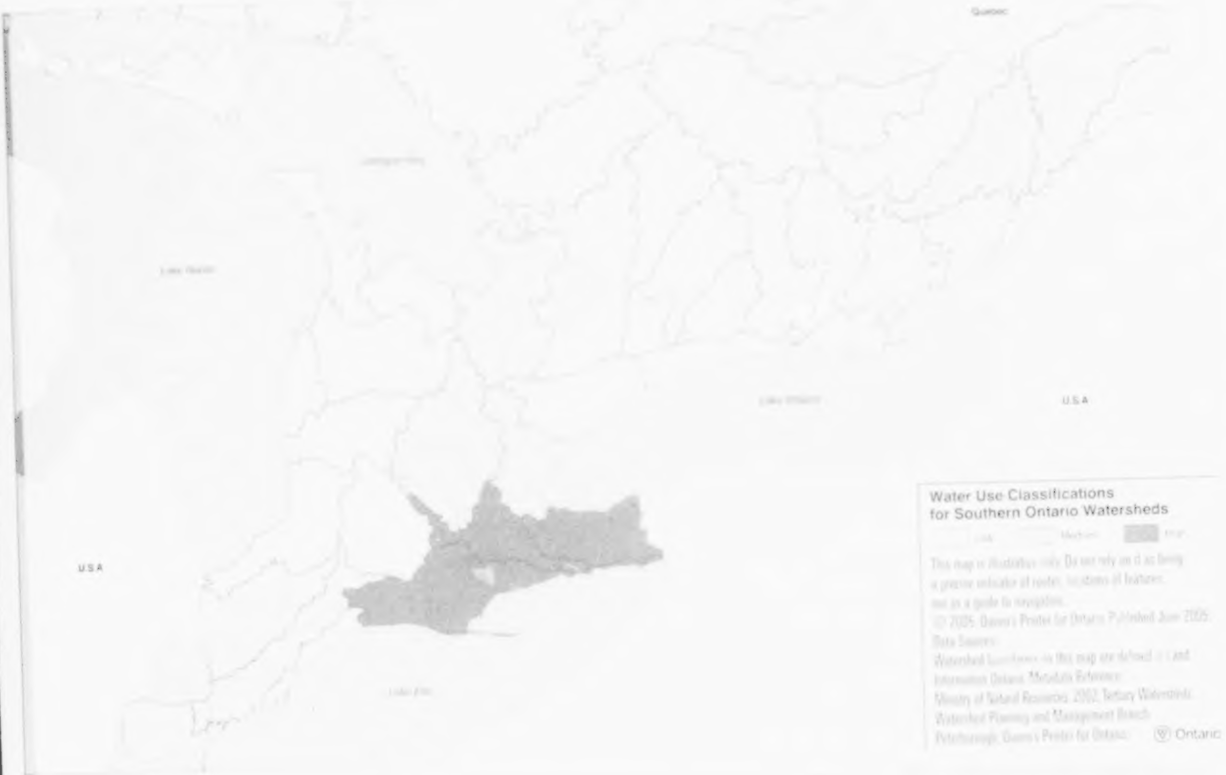
* Map, courtesy of MNR's Water Resources Information Program.

Another map issued with the new regulation, "Water Use – Average Annual Flow Conditions," indicates a few high use watersheds where specified water-consuming industries will not be allowed new PTTWs at all. These maps are also significant because the regulation now requires that water availability be a factor in all PTTW decisions.

The regulation expands on the water quantity, water quality, water availability and ecosystem factors that the ministry must consider when issuing permits. Factors that must be considered include whether water conservation will be implemented, the purpose of the proposed water taking, and whether the requested quantity will actually be used. MOE must notify municipalities and Conservation Authorities of some types of PTTW applications. The ministry also may require an applicant to consult other interested parties and report back to MOE on how concerns were resolved.

Water transfer and the Great Lakes

The regulation also prohibits "water transfer" or movement of water out of watersheds, including the Great Lakes basin. (For an update on the Great Lakes Charter, a water management agreement between Ontario, Quebec and the eight Great Lakes states, see pages 64-68.)


Quebec
Georgian Bay
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This map* [illegible] designated [illegible] water-consuming [illegible]

* Map, courtesy of MOE [illegible]

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Implications of the decision

The new Water Taking and Transfer Regulation will allow MOE to begin systematically collecting information on actual quantities of water taken. The regulation also provides greater specificity on which ecosystem functions the ministry must take into account, and applicants may be required to submit information on potential ecosystem impacts. MOE will need to develop its own ecological expertise, as well as clarifying how it will interpret the regulation's water and ecosystem protection provisions.

While O. Reg. 387/04 requires the Director to take into account the purpose for which the water is to be used, it does not spell out which purposes are to be given priority over others. One of MOE's claims was that "new or expanded takings that would remove water from watersheds that already have a high level of use will no longer be allowed." However, the regulation in fact targets only specific activities (e.g., water bottling) while specifically exempting other high-consumption activities (e.g., agriculture).

Public participation & the *EBR* process

MOE carried out several rounds of consultation, as well as the one that started in June 2004 and provided the basis for O. Reg. 387/04. Fifty-eight commenters responded to MOE's 2004 proposal notice. Respondents commended MOE for proposed improvements to the regulation. Some comments focused on promoting the interests of particular sectors such as agriculture, electricity generation, mining, or golf courses. Others presented ideas to strengthen environmental protections under the PTTW program. Many commenters suggested that an existing ban on transferring water out of the Great Lakes basin be extended to include bottled water. Commenters also called for coordination of the PTTW program with the forthcoming source protection program. Most comments were not addressed in the ministry's decision. In response to comments, the ministry did provide maps of high use watersheds and established a phase-in of water use monitoring and reporting for all permit holders.

Many commenters called on MOE to release all technical guidance documents so that the public could review them along with the proposed regulation, but, unfortunately, this did not occur. MOE did revise its technical guidance with a new PTTW Manual, but consultations on the manual were held after O. Reg. 387/04 had already been issued. The new manual was finalized in April 2005, and the ECO will review this policy decision in our 2005/2006 report.

Comments also focused on water taking fees, a topic addressed in several rounds of consultation on the PTTW program, but not covered in O. Reg. 387/04. On December 23, 2004, MOE announced that fees for PTTW applicants would apply beginning in April 2005 (farmers were subsequently exempted).

ECO Comment

The ECO has been among many of those calling for an overhaul of the PTTW program. In a 2001 brief to the Walkerton Inquiry, the ECO pointed out several weaknesses, including:

- PTTW proposals on the Registry were often incomplete and inaccurate.
- MOE did not subject some PTTWs to the *EBR*'s consultation and leave to appeal provisions.
- MOE tracked only quantities permitted, not quantities actually taken.
- The 50,000 litres/day threshold excluded many significant water takings, and information was needed on agricultural takings exempt from PTTW requirements, and on domestic wells.
- MOE staff did not appear to be implementing the ecosystem protection provisions of the 1999 regulation, since they lacked accurate data on existing takings and were using a PTTW guidance manual that had not been substantively updated since 1984.

The ECO welcomes the changes to the Water Taking and Transfer Regulation that governs the PTTW program. The requirement for monitoring and reporting on quantities of water taken is an important improvement. Accurate data on water takings can improve decisions on future PTTW applications, and support other provincial initiatives like source protection, Great Lakes programs and state-of-the-resource reporting. The ECO urges MOE to manage PTTW data actively, making it readily available for the ministry's own programs and for the broader water protection community. To do so, MOE must audit reported water use volumes, maintain an up-to-date database, and ensure accurate geo-referencing of all permits. This data can then be linked to information on Ontario's water levels and flows, water quality and land use – for example, through the province's Water Resources Information Project. To support water management in Ontario, the ECO also encourages MOE to develop water budget methods that account for water takings not captured by the PTTW requirements, such as private domestic and agricultural uses.

The ECO commends the Ministry of the Environment for beginning to clarify the regulation's ecosystem protection provisions, for enshrining water conservation as an important feature of the regulation, and for adding new public consultation provisions. Many issues require further clarification: how and when applicants will be required to conduct consultations; the extent of applicants' responsibility for providing information on ecosystem function and water use considerations; and which water conservation standards are to be applied to different types of water takings. The ECO is hopeful that the PTTW Manual and other guidelines will provide the necessary clarity.

MOE added valuable clarification by providing maps with the final regulation, delineating high and medium use watersheds. However, the ministry did not provide information on what technical (or other) criteria were used to classify Ontario's watersheds. The ECO encourages the ministry to clarify how water use characterisation was done, to indicate when these maps will be updated, and to commit to full public consultation on future watershed use designation decisions.

The new regulation requires consideration of the purposes for which water will be used. It does not provide a clear framework for prioritizing some types of water takings over others. The ECO urges MOE to develop a policy on the hierarchy of water takings, maintaining ecosystem protection as the primary consideration. *(For ministry comments, see page 217.)*

Proposal for a Scrap Tire Diversion Program Plan

Description

In June 2002, the Ontario government enacted the *Waste Diversion Act (WDA)* to "promote the reduction, reuse and recycling of waste" through programs that reduce or divert waste from standard waste disposal methods. Under the Act, a regulation is first made designating a waste, and then a waste diversion program is developed that sets diversion targets and provides sustainable funding. Companies that have a commercial connection to a designated waste are called "stewards" and are joined together in an industry funding organization, which is also responsible for developing and operating the waste diversion program in their sector.

In December 2004, the Ministry of the Environment posted a proposal on the Environmental Registry for a waste diversion plan called the "Scrap Tire Diversion Program Plan" (STDPP), developed by the Ontario Tire Stewardship.

The Scrap Tire Diversion Program Plan

Each year in Ontario, approximately 10.8 million tires become available for waste disposal. The proposed STDPP plans to divert over 90 per cent of these used and scrap tires – including highway passenger, light truck and commercial truck tires – and to eliminate stockpiled tires in Year 5 of the program. Diversion strategies include encouraging reuse of tires, reducing the number of tires designated as scrap each year, and recycling scrap tires by processing them into raw materials for products such as rubberized asphalt and sports surfaces. Although a waste diversion program cannot promote burning as a diversion strategy under the *WDA*, the STDPP proposes that in some circumstances scrap tires be burned.

Table: Scrap tire generation and diversion for Ontario in 2002, as estimated by the Rubber Association of Canada. Since vehicle tires vary in size and weight, the tire industry uses "passenger tire equivalents" to report tire statistics.

	Estimated PTEs (000's)	Tonnes (000's)	Per cent (%)
Scrap tires generated	13,607	136.1	100.0
Diversion			
Ground rubber (crumb rubber)	5,285	52.8	38.9
Fabricated Products (e.g., fencing, mats)	800	8.0	5.9
Civil engineering (e.g., erosion barriers)	800	8.0	5.9
Export – usable tires	1,200	12.0	8.8
Export – U.S. cement kilns and power plants	3,722	37.2	27.4
Tire-derived fuel (Ontario)	–	–	0.0
Landfill	1,000	10.0	7.3
Non-verifiable diversion	800	8.0	5.9

Tire stewardship fees

The Ontario Tire Stewardship (OTS) identified tire manufacturers, vehicle manufacturers, generators (i.e., sources of used and scrap tires) such as tire retailers, wholesalers and vehicle dismantlers, haulers and processors of scrap tires, and consumers as having commercial connections to tires – but not all of them as the stewards responsible for collecting the fees that would support the operation of the tire waste diversion program. Instructions from MOE to the OTS stipulated that "brand owners and first importers" – Ontario-based tire manufacturers and tire suppliers – should be defined as stewards of the program, but the OTS instead identified tire retailers as stewards. Thus, only tire retailers would be allowed to collect the tire stewardship fee from consumers – $3.65 for each new passenger or light truck tire, and $5.50 for each new commercial truck tire purchased.

The fees would be remitted to a yet-to-be-named third party that would maintain a register of all stewards, generators, haulers and processors. The third party would pay registered haulers for picking up scrap tires from registered generators. In exchange, haulers would not charge generators for pickup of their tires. The third party would also distribute some of the fees to registered processors to encourage them to make products of the highest value possible. For example, processors that convert scrap tires into crumb rubber would be paid more than processors that burn tires as fuel. Fees would also be used to fund research, market development and a public education program that explains how to prolong the life of vehicle tires, thus promoting waste reduction. A manifest system would be used to track tires from generation to final disposition, which the OTS believes will eliminate illegal dumping of tires.

Existing scrap tire stockpiles

According to the proposed STDPP, many of the approximately 5 to 6 million tires stockpiled in Ontario are too oxidized, or too dirty (unless they are first cleaned), to be recycled. It notes that the only viable option for eliminating stockpiles is for the cement industry to burn tires as fuel.

Implications of the decision

The proposed funding mechanism for STDPP changes how management of scrap tires in Ontario is financed. Currently, most tire retailers charge their customers a disposal fee for taking back used and scrap tires and then pay haulers to take the tires. Haulers then sell the reusable tires and pay processors to take the remaining tires. Processors are also paid for the products that they produce such as crumb rubber. The OTS estimates that tire retailers currently earn $1.50 per scrap tire, but that under the new funding formula, they would earn $0.35 per scrap tire and haulers and processors would earn more than they currently do. The Ontario Tire Collectors Association and others have expressed concerns about the proposed funding formula, since it changes the existing business model that they believe has been very effective at diverting tires from landfill at a significantly lower cost.

Based on 2002 data, the OTS also estimates that about half of the scrap tires that remain in Ontario are currently processed into crumb rubber. However, even if additional processing capacity became available in Year 3, the OTS estimates that about 1,500,000 more PTEs – passenger tire equivalents – will be generated in Year 5 of the program than can be processed. Again, the proposed STDPP notes that burning tires as fuel in cement kilns would be a solution.

However, the cement industry has indicated that it needs a guaranteed commitment of two million PTEs annually to make tires a viable option as a fuel substitute. Some groups have expressed concern that allowing tires to be burned will divert tires from higher-value uses such as crumb rubber. Advocates of tire-derived fuel argue that tires produce more energy than coal and have lower NO_x and SO_2 emissions than high-sulphur coal.

Public participation & the *EBR* process

MOE posted the proposal on the Registry for a 60-day comment period. The Registry notice also has a link to a Web page on which the public can input its comments to questions such as whether the tire stewardship fee should be covered in the price of the tire or as a separate charge; whether or not Ontario should support burning tires as fuel; and whether a fee should be paid to operations that burn tires as fuel. The ECO will review public participation and the use of the *Environmental Bill of Rights* after a decision is made.

Other information

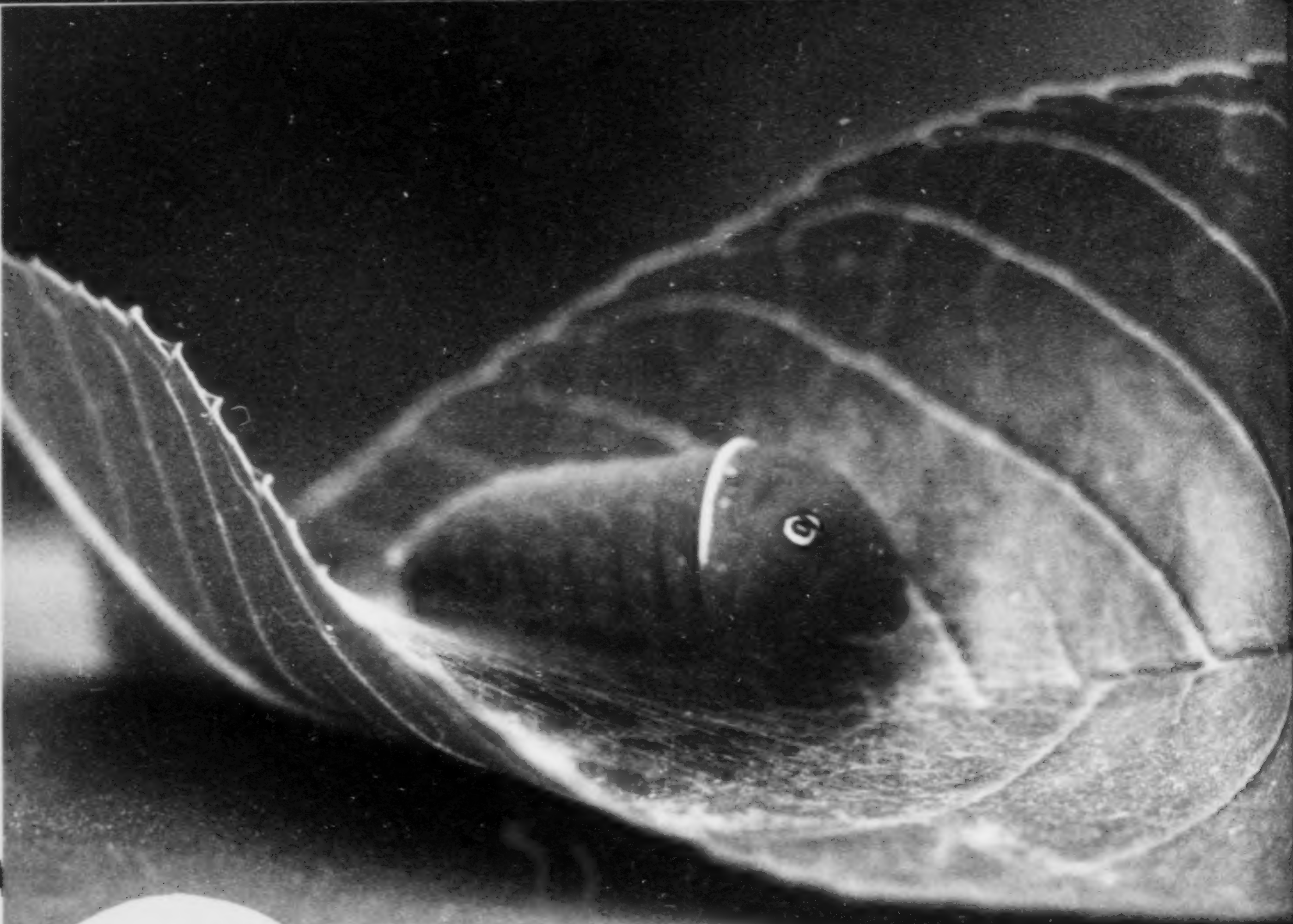
According to the Ontario Tire Collectors Association, 94 to 97 per cent of tires are currently being recovered versus the 85 per cent recovery rate (Year 1 target) proposed by the OTS. The Association also notes that since MOE is ensuring that stockpiles are reduced by holding owners responsible, it is not necessary for stockpiles to be addressed by the proposed STDPP.

Tire stockpiles have long been a contentious issue in Ontario. In 1990, a stockpile of about 14 million tires in Hagersville, Ontario, burned for 17 days. It forced the evacuation of 600 homes, contaminated air, soil and surface water, and cost over $12 million for emergency response and immediate clean-up efforts. In June 2003, MOE ordered the owners of nine sites to remove illegally stored tires.

ECO Comment

Although the WDO formally withdrew the STDPP in June 2005, and it was no longer under active consideration in July 2005, this proposal has raised several important issues for public discussion in Ontario. First, the *WDA* specifically bans burning of designated wastes as a diversion strategy. However, the proposed STDPP advises that burning tires is the only practical strategy for eliminating stockpiles. Despite significant public opposition, options such as incineration are increasingly being suggested by municipalities struggling to dispose of their solid wastes. However, even these municipalities generally don't include tires in these options. Second, the proposed STDPP has designated tire retailers as stewards, in spite of MOE's request that brand owners and first importers be designated. Concerns by industry about the definition of "steward" were first raised when the Blue Box Program Plan was developed and continue with this proposal. Finally, the proposal raises the question of whether recycling fees should be visible or simply included in the price of the product.

Resolution of these issues will have a significant impact on waste management and waste diversion strategies in Ontario for years to come. The ECO is pleased that MOE has exceeded the public comment requirements of the *EBR*, and will continue to monitor closely the public debate about how to divert scrap tires from landfills and how to eliminate existing stockpiles. *(For ministry comments, see page 218.)*



PART 5

Applications for Reviews and Investigations

Members of the public can use the application processes provided by the *Environmental Bill of Rights* to urge ministry action they believe is needed to protect the environment. Under the *EBR*, Ontario residents can ask government ministries to review an existing policy, law, regulation or instrument (such as a certificate of approval or permit) if they feel that the environment is not being protected. Residents can also request ministries to review the need for a new law, regulation or policy. Such requests are called applications for review. Ontario residents can also ask ministries to investigate alleged contraventions of specific environmental laws, regulations and instruments. These are called applications for investigation.

The ECO's Role in Applications

Applications for review or investigation are first submitted to the Environmental Commissioner of Ontario, where they are reviewed for completeness. Once ECO staff have decided that a particular application meets the requirements of the *EBR*, the ECO forwards it to the appropriate ministry or ministries. The ministries then decide whether they will conduct the requested review or investigation or whether they will deny it. The ECO reviews and reports on the handling and disposition of applications by ministries. The issues raised by the applications are an indication of the types of environmental concerns faced by members of the public, and sometimes lead the ECO to do follow up research on them.

Five ministries are required to respond to both applications for review and applications for investigation. They are:

- Environment
- Energy
- Natural Resources
- Northern Development and Mines
- Consumer and Business Services (Technical Standards and Safety Authority)

Two ministries are required to respond to applications for review only:

- Agriculture and Food
- Municipal Affairs and Housing

In the 2004/2005 reporting year, the ECO received 15 applications for review and eight applications for investigation. Individual applications for review and investigation may be forwarded to more than one ministry if the subject matter is relevant to multiple ministries, or if the applicants allege that Acts, regulations or instruments administered by multiple ministries have been contravened.

Ministries occasionally deny applications on the grounds that reviews, studies or investigations are already in progress. In these cases, the ECO recommends that the ministry doing this work subsequently provide any results or reports from the non-*EBR* investigation or review to the *EBR* applicants and to the ECO.

The following tables provide a breakdown of the disposition of applications handled by the ministries during the year. The total number of reviews and investigations indicated as completed or denied during the year also may include applications that were listed as "in progress" in the previous fiscal year.

Reviews

Ministry	Total Forwarded In Year	Reviews Denied	Reviews Completed	Reviews in Progress as of March 31, 2005
MOE	10	7	3	3
MNR	5	5	1	2

Investigations

Ministry	Total Forwarded In Year	Investigations Denied	Investigations Completed	Investigations in Progress as of March 31, 2005
MOE	6	4	3	0
MNR	2	1	0	1

As in previous years, the majority of applications for review and investigation were denied. In many cases, the ECO did not agree with the ministries' rationale for denying these applications. Detailed ECO reviews of the applications for review and investigation are found in Sections 5 and 6 of the Supplement to this annual report. In this part of the annual report, we include summaries of our reviews of a sampling of the applications handled by ministries during this reporting period.

Treatment of Landfill Leachate in STPs

In May 2002, the ECO received an application under the *Environmental Bill of Rights* from Hamilton residents requesting a review of several laws and policies governing the discharge of landfill leachate into municipal sewage treatment plants (STPs). Although the impetus for this application was the City of Hamilton's approach to dealing with landfill leachate, the applicants requested a province-wide policy review. They argued that the existing rules are not adequate, and that STPs are not designed to treat this type of wastewater. They also stated that pre-treatment and pre-testing should be done before landfill leachates are discharged to STPs; discharge agreements should be made public; and agreements allowing leachate to exceed sewer use bylaws should not be permitted.

Impacts of landfill leachate

Landfill leachate is produced when water percolates through the waste material of a landfill site, accumulating a wide range of substances in solution and becoming wastewater. Leachate characteristics can vary significantly, depending on the type of waste, the age of the landfill, the season, the hydrogeology, the flow rate and other factors. Because of the complexity and variability of leachate composition, it can be very challenging to treat. Methods of treatment that may be effective for a "young" landfill leachate may not be appropriate for leachate from an old landfill. Surveys of municipal solid waste landfills in the U.S. have shown that their leachate can normally contain a variety of toxic and possibly carcinogenic chemicals, and some studies suggest they may be as acutely and chronically toxic as the leachates from hazardous waste landfills.

Approximately 30 municipal STPs in Ontario receive leachates for treatment. The key question raised by this *EBR* application is whether municipal sewage treatment (i.e., the aerobic activated sludge process) can effectively biodegrade toxic contaminants found in landfill leachate, or whether these contaminants are simply diluted and destined either for release to the waterway or for accumulation in sewage sludge.

The U.S. Environmental Protection Agency has noted that some contaminants are known not to biodegrade aerobically, and that the aeration stage of municipal sewage treatment may drive off volatile organic compounds as air emissions. STPs may also be challenged by the very high levels of ammonia nitrogen commonly found in older landfill leachates.

Existing rules for landfill leachate

Under the existing regulatory structure, landfill leachate may be considered "sewage" under the *Ontario Water Resources Act*. However, MOE's Guidance Manual for Landfill Sites warned 12 years ago that "more stringent treatment requirements may be forthcoming" and acknowledged that "contaminants in the leachate may not affect plant performance, but may pass through the plant and, without removal, be discharged in the effluent."

Ministry response

In August 2002, the Ministry of the Environment informed the applicants that it would undertake the review, to be completed within 18 months. The ministry also provided a three-page overview of what the review would entail and what initiatives were already under way, and advised that stakeholders would be consulted during the review, including future notices on the Environmental Registry. Among other things, the ministry committed to reviewing its Model Sewer Use Bylaw, and to developing a Best Practices Sewer Use document, which would include the issue of public access to information on treatment. The ministry eventually mailed the completed review to the applicants on September 22, 2004.

Significantly, the ministry's review found that there was indeed a need to improve ministry policies relating to the management of landfill leachate. The ministry noted that "it is recognized that most STPs in Ontario are not specifically designed to treat landfill leachates," and explained that since STPs are primarily designed to treat sanitary sewage, their effluents are required to comply only with a few conventional parameters. In other words, STPs are not designed to treat persistent organic compounds, toxic metals and many other contaminants routinely discharged to sewers; these substances are not normally monitored in the effluents of STPs; and there are no legal limits in certificates of approval for STPs to control their discharge to the environment. (For a related analysis of the fate of pharmaceuticals discharged to sewers, see pages 179-185.)

The ministry's review did note that disposing of leachate to STPs was not predicted to impact final effluent quality in cases where the shock-loading of leachate is avoided and where plants have been upgraded to provide full nitrification – a process that encourages the biological conversion of ammonia to nitrate/nitrite. But it can be an expensive upgrade and is not widespread. Full nitrification does not appear to be an MOE pre-condition for STPs to receive leachate.

The ministry's response committed to a number of steps, beginning with a one-year program to sample landfill leachates and effluents. MOE also committed to revising several ministry policies, notably F-5, which deals with treatment levels of STPs, and also F-10, which addresses sampling and analysis requirements for STPs. The ministry has advised the ECO that public consultation on these policies is likely to occur in the spring of 2005.

Treatment of Landfill Leachate by the City of Hamilton

Hamilton Harbour, on the western tip of Lake Ontario, was identified as an Area of Concern by the International Joint Commission in 1983. The harbour receives waste discharges from many large local industries as well as the effluents from several municipal STPs. By far the largest of these is the Woodward Avenue plant, which has had secondary treatment since the early 1970s. The addition of secondary treatment was effective in reducing phosphorus discharges, but ammonia discharges remain a problem for the plant because they can contribute to sporadic fish kills.

The leachate collection systems from eight landfill sites are connected to Hamilton's sewer system, to be treated at the Woodward Avenue plant. Hamilton also has 35 "overstrength agreements" with discharging industries. Overstrength agreements allow companies hooked up to the sewers to discharge liquid wastes that exceed limits set out in the city's sewer use bylaw. Hamilton's overstrength agreements allow an estimated 5.7 million m^3 of overstrength effluent to enter the sewer system annually.

In 1993, Taro Aggregates obtained an exemption from the sewer use bylaws of the former Regional Municipality of Hamilton-Wentworth, allowing them to discharge leachate from their West Quarry landfill to the sewer system, even though it exceeded municipal limits for salts and phenols by 8 to 10 times. Taro's 1993 Overstrength Agreement was supposed to be temporary until the company could find a way to treat the leachate so it would meet sewer bylaw standards. The company signed an agreement that required it to build an on-site pre-treatment plant by July 1995 at the now-closed West Quarry landfill. This plant was never built, and a subsequent agreement signed in 2001 shelved the requirement for pre-treatment.

In 2002, Taro Aggregates received permission from the municipality to discharge leachate from the East Quarry landfill to the sewer, as well as the leachate from the West landfill, which is still being discharged to the sewer without pre-treatment. Together the East and West Quarry landfills produce an estimated 430,000 m^3 of leachate each year.

In September 2004, as part of the response to the 2002 *EBR* application for review from Hamilton residents, MOE initiated a review of the certificate of approval allowing the Woodward Avenue Plant to treat landfill leachate.

Based in part on articles authored by Richard Leitner in 2002/2003 in the *Stoney Creek News*, the *Flamborough Review* and the *Ancaster News*.

MOE's September 2004 response did not make any commitments to resolve another group of concerns raised by the applicants – the non-public nature of municipal discharge agreements and the fact that municipalities often gain significant revenues by signing agreements with industrial sewer users. (See, for example, Treatment of Landfill Leachate by the City of Hamilton, above.) Through such agreements, which are authorized under the *Municipal Act*, municipalities are able to impose cost-of-service fees on industries discharging wastewater into the sewer system. The ministry distances itself from responsibility for wastewater entering municipal sewers. MOE's approach instead is to focus on regulating the effluents of STPs, and thus, indirectly, to influence municipal controls further up the pipe.

MOE's response briefly mentioned two existing inter-jurisdictional commitments to develop a management framework for municipal STPs discharges, through both the Canada-Ontario Agreement Respecting the Great Lakes and the Canadian Council of Ministers of the Environment. However, MOE did not elaborate on their relevance or on progress thus far.

ECO Comment

It is commendable that MOE took on this review and acknowledged the need to improve policies related to the management of landfill leachate. But it is important for context to note that the ministry was clearly aware at least 12 years ago of the shortcomings of co-treating leachate with municipal sewage. Indeed, the ministry's 1993 landfill manual warned proponents that "more stringent treatment requirements may be forthcoming." The lack of action in the intervening dozen years to strengthen monitoring requirements or effluent standards for sewage treatment effluents is troubling. As a result, we cannot estimate the mass loadings of persistent toxic contaminants that have been released to our waterways annually through this pathway. A mass loading measurement approach is important for substances that resist biodegradation and tend to accumulate in ecosystems over time. MOE's new leachate sampling project is welcome, but it should include the capability to calculate mass loadings. As well, it should not be used as a reason to further postpone the development of a stronger regulatory framework for this waste stream.

. . . the ministry was clearly aware at least 12 years ago of the shortcomings of co-treating leachate with municipal sewage . . . . The lack of action in the intervening dozen years to strengthen monitoring requirements or effluent standards for sewage treatment effluents is troubling. As a result, we cannot estimate the mass loadings of persistent toxic contaminants that have been released to our waterways annually through this pathway.

Sewer use policy is a closely related issue, and the ministry's movement on this topic over the past dozen or more years has been similarly slow. In the late 1980s a flagship program (the Municipal Industrial Strategy for Abatemen, or MISA) intended, among other things, to strengthen sewer use controls. But the municipal side of MISA was never rolled out. (Although the applicants requested a review of MISA, the ministry's response did not touch on this topic.) In 1998 MOE posted an updated version of its model sewer use bylaw as a proposal, which has been left undecided on the Registry for the past seven years. (The ECO highlighted this unfinished business in our 2003/2004 annual report, pages 35-41.)

In August 2002, this *EBR* application prompted MOE to promise yet again:

- a review of the model sewer use bylaw.
- a Best Practices Sewer Use document, including the issue of public access to information on treatment.
- a study to explore options for setting more "stringent effluent requirements that take into consideration treatment of septage as well as landfill leachate."

In September 2004, MOE failed to update the applicants on the status of these initiatives. However, the ECO has learned that the ministry has decided against updating the 1988 model sewer use bylaw, and instead plans to develop a best management practices guide for municipalities. MOE had in fact promised to do just that in March 2002, under an agreement signed with Environment Canada, but first steps toward hiring a consultant to do the work were delayed until November 2004.

Lack of public consultation

The ministry has assured the ECO for several years that it is engaged in a multi-year policy review to develop a management framework for municipal wastewater. The ECO is concerned that thus far, MOE's review has been almost wholly an internal exercise. This "black box" approach stands in marked contrast to the ministry's more transparent approach to air issues.

An informed public dialogue requires, as a prerequisite, an informed public. The ECO recommended two years ago that as a first step, MOE should document and report on the quality of STP discharges to Ontario's receiving waters. This remains a key need, since the ministry last published a comprehensive overview in 1993. Certainly the ministry should post a decision on its seven-year old Registry proposal for a revised model sewer use bylaw, clarifying that the ministry is embarking on a different course. MOE should also solicit public input as it develops a best practices guidance document for municipalities, especially on contentious issues such as municipal transparency and accountability for discharge agreements with industry.

Among other things, the ministry should be updating the public about its progress on commitments under the Canada-Ontario Agreement Respecting the Great Lakes related to sewage issues, and its positions taken vis-a-vis Environment Canada's proposals to regulate ammonia in municipal wastewater effluents. The outcome of MOE's ongoing survey of landfill leachates and sewage treatment effluents should also be made available to the public. The ECO will continue to monitor the progress of MOE's policy review.

(A more detailed review of this application is found in the Supplement to this report, pages 225-232.) *(For ministry comments, see page 218.)*

Combined Sewer Overflows and Beach Closures

In October 2004, applicants used the *Environmental Bill of Rights* to request a review of a Ministry of the Environment policy (Procedure F-5-5) established in 1995, requiring municipalities with combined sewer systems to develop Pollution Prevention and Control Plans (PPCPs). Combined sewer systems collect both municipal sewage and stormwater in a single-pipe system and transport the mixture to the local sewage treatment plant. During storms, these systems overflow to local waterways to avoid overloading the sewage treatment plant.

The applicants were concerned that several Ontario cities experienced a high number of beach closures in 2002-2004 due to bacterial pollution, arguing that combined sewer overflows are a major factor in the beach closures. They submitted surface water bacterial sampling results, collected in dry weather, for four cities: Kingston, Toronto, Hamilton and St. Catharines. The applicants noted that some of these bacterial levels were very high – evidence that combined sewers are discharging untreated sewage to waterways even in dry weather, contrary to the goals of F-5-5. The applicants argued that although F-5-5 has the potential to be a very valuable policy for protecting urban beaches, its poor implementation to date by MOE and municipalities provides little hope that its objectives will be met in the near future. Although the ministry declined a review under the *EBR*, the ECO is pleased that MOE agreed to examine the adequacy of Pollution Prevention and Control Plans for the four cities, as well as the use of voluntary versus mandatory measures for these municipalities to meet the objectives of F-5-5. MOE expects to complete its review by the end of 2005.

The language of F-5-5 indicates quite clearly that it must be implemented by the approximately 200 Ontario municipalities with combined sewer systems. However, the ministry has never required compliance with F-5-5; specifically, it has never required municipalities to submit their PPCPs, nor has MOE ever reviewed the adequacy of these municipal plans.

ECO Comment

The ECO agrees with the applicants' assessment of F-5-5 as a potentially valuable policy, if the ministry were to treat municipal compliance as a high priority. This could be achieved by making the policy into a regulation, ideally with benchmark timelines. Alternatively, MOE could simply implement the existing policy, by freezing new municipal development on combined sewers until necessary upgrading is carried out. MOE should also dedicate resources to begin evaluating the PPCPs that presumably have been developed by almost 200 Ontario municipalities over the past decade.

Combined sewer overflows are a major water quality issue not only in Ontario, but also in the United States. The U.S. Environmental Protection Agency issued a combined sewer overflow policy in 1994. Even though the policy had enforcement mechanisms and a deadline (1997), U.S. regulators saw a need to raise it to the status of law in 2000. The ECO encourages MOE to examine the U.S. experience in regulating combined sewer overflows and in funding improvement projects, as well as its mechanisms for keeping the public informed on progress. The ECO also encourages the ministry to publish the outcome of its review, and to welcome public comment on the issue. The ECO will report on the ministry's examination of this issue in an upcoming annual report.

(The Supplement to this report, pages 248-254, provides more details on this application and the U.S. experience with combined sewer overflows, as well as a discussion of best management practices.) *(For ministry comments, see page 218.)*

Aquaculture in Georgian Bay – Water Quality and Environmental Monitoring

Background

In 2003, two applicants requested a review under the *EBR*, citing numerous concerns about the Ontario government's policies and regulations related to cage aquaculture in Georgian Bay public waters. The applicants included study results that suggest organic and nutrient enrichment are contributing to recent changes in water quality in Georgian Bay. They are concerned that increasing development, aquaculture and dredging activities in the area are contributing to the decline in water quality. The Ministry of the Environment agreed to undertake the review.

What is cage aquaculture?

Cage aquaculture is a method of fish farming that involves growing fish (usually rainbow trout in Ontario) in cages that are suspended in a waterbody. Water flows through the cages bringing oxygen and carrying away wastes such as fish feces, uneaten food and medications. Wastes are also deposited on the bed of the waterbody beneath and downstream of the cages. This contrasts with land-based aquaculture where fish are raised in ponds or tanks and wastewater must be treated before it is discharged.

The applicants noted that the eastern shoreline of Georgian Bay is primarily used for recreational activities, as a source of drinking water and as a receiver of domestic sewage. Georgian Bay has naturally low concentrations of nitrates, phosphates and other plant nutrients.

In 2003, there were approximately 190 private fish farms in Ontario, producing an estimated 4,550 tonnes of rainbow trout. About 80 per cent of rainbow trout production came from cage operations. Under subsection 47(1) of the *Fish & Wildlife Conservation Act (FWCA)*, fish farm operators must have an aquaculture license from the Ministry of Natural Resources, which is valid for a five-year term. Operators must comply with the *Environmental Protection Act, Ontario Water Resources Act (OWRA)*, federal *Fisheries Act*, and with the water protection measures defined in their *FWCA* license. Cage operators are not required to obtain any approvals under the *OWRA*. Since the Ministry of Natural Resources is responsible for cage aquaculture licenses, MOE can investigate water quality concerns only if there is a suspected violation of the *OWRA*. Although MNR approved 10 policies on various aspects of aquaculture in 2004, a specific policy for cage aquaculture in the Great Lakes has not yet been developed. (For additional information about these policies and procedures, refer to pages 182-186.)

Several MOE policies are relevant to water and sediment quality under and around cage aquaculture operations, including the following:

- The minimum acceptable level for dissolved oxygen (DO) in water to protect organisms ranges from 5 to 8 mg/L, depending on the water temperature, according to the 1999 Provincial Water Quality Objectives (PWQO).
- The interim PWQO level (an interim PWQO is defined when there is insufficient toxicological information available to set a PWQO) for Total Phosphorus (TP) in water to protect against aesthetic deterioration, including algal blooms, is 10 µg/L or less if the background TP is naturally lower.
- The level of TP in sediment that will result in a detrimental effect to the majority of benthic (bottom-dwelling invertebrates such as dragonfly larvae) species is defined in the 1993 Guidelines for the Protection and Management of Aquatic Sediment Quality in Ontario.

- A general PWQO requires that all waters remain free of substances that can form objectionable deposits or can produce "adverse physiological or behavioural responses in humans, animals or plants."
- A guideline in the 1994 Water Management document states "water quality shall be maintained at or above" the PWQO, "although some lowering of water quality is permissible."

MOE documented its expectations for water and sediment quality monitoring conditions in cage aquaculture licenses in its "Recommendations for Operational Water Quality Monitoring at Cage Culture Aquaculture Operations, Final Draft, 2001," which MOE provided to MNR for implementation. MOE recommended that sediment sampling be done one year prior to an existing aquaculture license's being renewed, and that an operator be required to submit an abatement plan if the median concentration of TP in water is found to be greater than or equal to 10 µg/L. MOE also advised that if DO concentrations fall below 6 mg/L, a benthic sampling program may be requested.

Summary of issues raised by the applicants

The applicants raised numerous concerns. (Additional concerns are discussed in the Supplement to this report, pages 232-241.) A key concern is that wastes from cage aquaculture operations are raising phosphorus levels in sediment and in water, which may cause algal blooms. They noted that although background levels of TP in Georgian Bay waters are 3-5 µg/L, MOE uses 10 µg/L as the level at which cage operators are required to take corrective action, despite a PWQO that states if the background TP level is lower than 10 µg/L, it should be maintained at that lower level.

The applicants also noted that elevated phosphorus levels can create areas of low oxygen levels that can change the species of fish and benthic invertebrates that inhabit those areas. The applicants believe that MOE has set an inappropriate threshold level for DO of 6 mg/L, and asked that MOE "confirm that local water and sediment quality is not being impacted" by cage operations by doing an "annual assessment of the benthic community."

Ministry response

MOE noted that the cage aquaculture industry in Ontario is small compared to other jurisdictions, but that the industry has the potential to grow. The ministry noted that there are emerging issues, such as fish manure management, and that "specific environmental concerns" would continue to be assessed on a case-by-case basis. MOE advised the applicants that there is no evidence that the PWQO for TP and DO are "not protective of water quality" in Georgian Bay, and that the TP objective protects the aesthetics of the water and, in particular, protects against algal blooms.

MOE explained that benthic surveys may be required when the level of TP in sediment is "detrimental to the majority of benthic species." As TP levels increase, the consumption of DO increases and DO concentrations may fall to levels that can no longer support life. MOE advised the applicants that a benthic survey would assist with understanding the biological effect of low DO concentrations if DO concentrations fell below 6 mg/L. MOE further explained that benthic sampling is required before a new cage aquaculture operation is sited and that sediment monitoring is more appropriate as a screening tool for potential biological impairment than annual benthic surveys.

MOE advised the applicants that it will continue to work with the aquaculture industry to improve environmental performance and to monitor the need for benthic surveys. MOE also indicated that it will continue to monitor the issue of TP, and may re-evaluate its interim PWQO for TP after the framework for phosphorus prepared by the Canadian Council of Ministers of the Environment (CCME) is finalized. This framework proposes a process for determining the level of TP at which further assessment would be required. The ECO notes that the CCME is proposing a trigger range from less than 4 to 10 µg/L TP for waters such as Georgian Bay.

ECO Comment

Despite taking 21 months to complete its review, MOE's response provided little new information and only vague commitments to improve the environmental performance of cage aquaculture operations. MOE's response may reflect the tension that currently exists between those federal and provincial ministries currently focused on growing the aquaculture industry, and those that are concerned about the environmental impacts of the industry.

The ECO is distressed that MOE trivialized the applicants' concerns about TP in water as being primarily aesthetic in nature. Although elevated phosphorus levels can cause algal blooms, they can also cause significant long-term ecosystem changes such as altering species composition, disrupting food chains, and causing the death of sensitive species in an area. MOE's decision to use 10 µg/L as the trigger level for TP allows large amounts of phosphorus to be added to Georgian Bay before abatement measures are considered. The ECO believes that MOE should not be using 10 µg/L as the trigger level for TP, and should not be relying on a water quality guideline that sanctions the degradation of high quality waters, i.e., better than PWQO levels.

The ECO believes that MOE has ignored the general PWQO that requires waters to be free of contaminating levels of substances that can form objectionable deposits such as fish feces and uneaten food. Furthermore, if sediment monitoring is done only every five years, early signs of degradation will not be detected. The ECO believes that more frequent sediment quality monitoring is required and that further consideration should be given to doing more proactive benthic monitoring.

The ECO urges MOE to take a more proactive approach to defining water and sediment quality policies for cage aquaculture operations, including monitoring and reporting rules, best practices and abatement measures. Continuing to address water and sediment quality concerns on a case-by-case basis rather than developing clear policies does not address the concerns of the public and leaves the aquaculture industry without clear direction. The ECO urges MOE and MNR to work together to ensure that water and sediment quality conditions are added to aquaculture licenses, that they are enforced, and that water and sediment quality are not impaired by these operations. *(For ministry comments, see pages 218-219.)*

Recommendation 9

The ECO recommends that MNR develop transparent and accountable processes related to approvals for aquaculture operations.

The Managed Forest Tax Incentive Program

In fall 2003, the ECO received an *EBR* application for a review of the Ministry of Natural Resources' Managed Forest Tax Incentive Program (MFTIP) from persons representing private foresters in southern Ontario. MFTIP was created in 1997 to provide a financial incentive to encourage private forest stewardship. Under the program, forests that are actively managed by their landowners and are more than four hectares (10 acres) in size would be assessed similar to farmland and taxed at the rate of 25 per cent of the municipal tax rate for residential properties.

The application for review raised concerns about how properties were being assessed for taxation purposes – an issue that began to intensify for managed forest property owners in early 2003. The applicants argued that around that time, the Municipal Property Assessment Corporation (MPAC), a municipally funded, not-for-profit corporation that assesses the value of property in Ontario for taxation purposes, began changing its methods of assessing the value of managed forest properties. (MPAC states it made certain changes in April 2003 at the direction of the Ministry of Finance, the ministry that oversees the *Assessment Act*, the legislation MPAC uses to administer property tax assessment.) According to the applicants, the changes to MPAC's property value assessment methodologies mean that many managed forest owners are required to pay substantial increases in property taxes, undermining the goals of the MFTIP program.

The applicants charged that the assessment of managed forests was redefined to be the "highest end use" (i.e., a land's potential value for residential and commercial development), instead of being valued on the same basis as farmlands. The applicants noted that when MFTIP was formulated in 1997, MNR indicated that managed forests would be taxed at the same rate and assessed identically to farmlands.

The applicants contended that if these issues are not resolved, many forested properties in southern Ontario could undergo clearing and land use transformation. They noted that more than 95 per cent of treed lands in southwestern Ontario are privately owned. Equally harmful, property owners will face a disincentive to reforesting marginal farmland if farm and forest lands are not given equivalent tax treatment. The applicants anticipated that the harmful environmental impacts from these forestry disincentives will include habitat loss and water quality degradation. Also, provincial initiatives such as MNR's Southcentral Region Forest Strategy and the Oak Ridges Moraine Plan could be adversely affected.

Ministry response

The Ministry of Natural Resources provided a thorough response to the application for review of MFTIP in the form of a 50-page report. The following is an overview of key items from the report:

Appropriateness of assessment methodology changes

MNR reported that using proxy values (farmland for forest lands) was inconsistent with the *Assessment Act*, particularly where sales data for forest properties were available. Continuing with this approach would lead to the establishment of a precedent in property tax policy. For these reasons, MNR agreed that MPAC acted appropriately in identifying the divergence in land values between farm and managed forest properties. MNR also concurred with MPAC's use of a new model for assessing the value of managed forest properties based on the sales of managed forest (MF) properties within defined areas of the province.

Communication to landowners

MNR acknowledged that the change in 2003 assessment methodology was not communicated by MPAC to MFTIP property owners in advance or as it was implemented. This lack of communication was particularly unfortunate, since property owners often received assessment notices with significant increases without an accompanying explanation or outreach effort from MPAC. Communicating to landowners about assessment methodology should have been a priority given the widespread understanding in the late 1990s that the government had committed to a principle of "assessing managed forest properties in a manner similar to (sometimes expressed as "identical to") farmland." Program materials for the MFTIP program included this wording, and it was commonly understood by stakeholders and property owners that it reflected a commitment to use acreage rates for farms as a proxy for managed forest land values.

Assessment and tax impacts

MNR reported that the average property values for managed forest properties (in aggregate), as measured by the average value per acre, did not increase substantially as a result of MPAC's new assessment methodology. Thus, tax increases were minimal for many MF property owners. For example, the ministry indicated that, according to their analysis, values per acre of MF properties were similar to values per acre for Class 4 farmland in all areas of the province, with the exception of the Greater Toronto Area and southcentral Ontario, where values lie slightly above Class 4 rates. Also, MNR noted that property taxes for the majority of MF property owners fall within the $50 to $250 range per parcel and fewer than 10 per cent of property owners will face a tax responsibility greater than $500.

Environmental harm

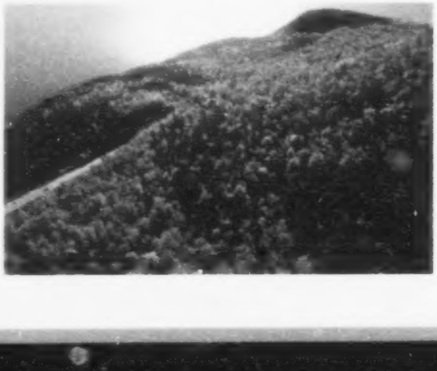
MNR concluded that harm to the environment would not result from MPAC's change in assessment methodology.

Recommendations arising from the review

MNR produced eight recommendations based on this *EBR* review (see the Supplement, pages 265-269, for a full list). Key among them was "MOF and MNR will establish a committee, including stakeholder representatives and MPAC, to respond to issues with implementation of the assessment procedures in the coming year. This committee will also oversee the implementation of recommendations in this report."

ECO Comment

The goal of MNR's Managed Forest Tax Incentive Program is "to maintain and enhance healthy forests that contribute to the maintenance of a healthy environment." The program has become very popular among landowners with managed forests and woodlots in Ontario. By 2004, more than 10,700 landowners were participating, helping to protect approximately 690,000 hectares of forest lands in Ontario. MNR acknowledges that the program is a powerful tool for increasing landowner awareness and education about sustainable forest management practices. Thus, the ECO believes that MPAC's assessment methodology changes are likely to be very detrimental to the managed forests of Ontario.



In its response to the applicants, MNR stated that MPAC's assessment methodology changes were appropriate and that continuing to use a subset of farm land values for assessment of managed forest properties would be inconsistent with the principles of Ontario's *Assessment Act*. But up until May 2003, MNR vigorously defended the pre-existing approach in correspondence to the Ministry of Finance. MNR wrote then that "MPAC's most recent valuation procedures (April 2003) are contrary to the government direction for MFTIP." This reversal of opinion on the part of MNR suggests that MPAC and MOF may be unduly influencing the administration of MFTIP and forcing MNR to abandon the core policy commitment of MFTIP – that managed forest properties would be assessed identical to farmland.

The ECO feels that MNR, MOF and MPAC should focus more attention on some of the underlying principles of the *Assessment Act* that affirm, not undermine, the goals of MFTIP. For example, forests on farm properties are considered by the Act to be of such value that certain forested lands are included under a category of tax-exempt properties that includes churches, museums, cemeteries, public hospitals and other institutions greatly valued by society. The *Assessment Act* also has wording that states that forests should be valued and assessed as forests, not as cottage or estate home developments.

MNR relied on average increases in assessments in its summary of the impact of MPAC's methodology changes in order to declare that property assessments did not increase substantially. As noted, MNR stated that property taxes for the majority of property owners fall within the $50 to $250 range and few will face a tax responsibility greater than $500. But it is also true that for about 5 per cent of the properties, assessments will rise by more than $1,000 a year and some of these by more than $10,000 a year – a very substantial increase. Some of the most affected properties are also large, and, therefore, major forest ecosystems could be put in jeopardy by the assessment increases. Furthermore, from MNR's detailed findings, it is apparent that the managed forest class was the hardest hit by MPAC's methodology changes:

Per cent increases in property tax assessments by class over 2003/2004

Property Class	2003	2004	Compound Increase
Residential	11%	13%	25%
Multi-Residential	12%	12%	24%
Commercial (broad)	12%	5%	18%
Industrial (broad)	18%	7%	26%
Farmland	18%	8%	27%
Managed Forest	22%	18%	44%
Average increase	12%	12%	25%

MNR concluded that harm to the environment would not result from MPAC's change in assessment methodology for managed forests. Yet the ministry acknowledged that in areas such as the outskirts of Toronto, where property values are significant and increasing, the reduction in property taxes provided by MFTIP may not be a significant enough incentive alone, and that "some participants may feel it necessary to sell the land, sever the land into smaller pieces, or as an interim measure practice poor forest management practice (i.e., heavy cuts)." Further, the ministry wrote that the afforestation of marginal farmland could be threatened. An "unintentional barrier could be created which may discourage tree planting and afforestation" on low productivity farms if there is a "divergence in taxation between farm lands and managed forests." This is precisely what is occurring, according to many of the letters of landowners that the applicants included in their application for a review of the MFTIP program.

In our 2003/2004 annual report, the ECO recommended that MNR ensure that the MFTIP provides no financial incentives to clear forested tracts of land in southern Ontario, where the majority of MFTIP participants are located. It is critical that these forested lands and woodlots be regarded as important for what they are intrinsically, and just as important as food production or the "next" development project. Such forests are vital for numerous reasons, providing biodiversity and habitat, mitigating floods and soil erosion, and buffering the effects of climate change.

The changes to MFTIP in 2003 significantly altered the initial conditions by which private foresters agreed to participate. Managed forest property owners made investments in land and silviculture based on the original program design. Redefining the program, several years into it and without public consultation, is unfair to the private foresters. These changes have become significant enough that some private forest managers have discussed litigation to resolve the matter. In the balance is the long-term silvicultural health of thousands of hectares of forest, mostly in southern Ontario, where private forested lands make up a significant portion of all forests in the area.

In December 2004, MNR issued a press release affirming that the province is working with the committee struck to carry out the recommendations arising from the *EBR* application in order to develop an assessment method that is similar to the approach used for farmlands. The ECO urges MNR to ensure that any new assessment methodology provide no financial incentives to MF property owners to remove trees from their property, nor any financial disincentives to reforesting marginal agricultural lands. Any new assessment methodology for managed forests must properly recognize a property's forest productivity value, and not its development value. This is key to ensuring that MFTIP's goal continues to be met. The ECO will be monitoring MFTIP developments in the future. *(For ministry comments, see page 219.)*

Rehabilitation of Pits and Quarries in Ontario

In November 2003, the ECO received an *EBR* application for review arguing that Ontario's pits and quarries are not being adequately rehabilitated by the aggregate industry, and requesting a review of sections of the *Aggregate Resources Act (ARA)*. The applicants represented a citizens' group called Gravel Watch, which also issued a news release alleging that Ontario's gravel pit operators are not complying with rehabilitation regulations, and stating that "less than half of excavated land is actually being rehabilitated." The applicants noted that under the current situation in Ontario, approximately 6,000 hectares per decade are being degraded by aggregate operations, without rehabilitation. MNR data indicate that over the past decade, an annual average of 1,056 hectares is newly disturbed by aggregate operations, while only 461 hectares are rehabilitated annually, on average.

The rehabilitation of pits and quarries is an important environmental issue for the ECO, and not solely because it is explicitly required by law. Many Ontario pits and quarries are located in ecologically sensitive landscapes such as the Niagara Escarpment and the Oak Ridges Moraine. Given the unceasing development pressures on these landscapes and especially on their ever-shrinking remnant natural areas, it is irresponsible to leave worked out pits and quarries in a continuing disturbed state. It is true that when such sites are rehabilitated, they are not always converted back to natural lands; frequently, they become recreational or residential areas. But even these uses can help ease pressures on other lands still in a natural state.

Many Ontario pits and quarries are located in ecologically sensitive landscapes such as the Niagara Escarpment and the Oak Ridges Moraine. Given the unceasing development pressures on these landscapes and especially on their ever-shrinking remnant natural areas, it is irresponsible to leave worked out pits and quarries in a continuing disturbed state.

The applicants also requested a review of s. 6.1 of the *ARA* relating to an Aggregate Resources Trust. Responsibility for this Trust, the applicants argue, has been inappropriately assigned to a company wholly owned by the Aggregate Producers of Ontario, in effect allowing an industry lobbying association to control and spend public money on rehabilitation work, without adequate public accountability.

The ECO forwarded the Gravel Watch application to MNR, which confirmed on January 31, 2004, that it would undertake the requested review. Although the ministry indicated in July 2004 that the review was very near completion, the applicants have since been notified several times that the review is still ongoing. In April 2005, the ministry sent the applicants an update letter, stating that "while the complexities of this review have certainly extended the process beyond our original estimation, I want to assure you that MNR remains fully engaged in the process and that there is a keen interest at all levels in the ultimate decisions flowing from this review process."

A set timeline for ministries to conduct reviews is not stipulated by the *EBR*, but the Act does state that ministers "shall conduct the review within a reasonable time." While a review period of 1.5 years is lengthy, it could be considered reasonable if, indeed, the ministry were actively continuing to evaluate complex issues. However, it would be neither reasonable nor appropriate for a ministry to delay the release of an otherwise completed review. At this point, the ECO urges MNR to expedite the completion and release of this review, which seemed near completion in July 2004.

On April 22, 2005, MNR declined a similar but separate request for review of certain aspects of the *ARA*, its regulations and related policy. This second application, submitted by the Pembina Institute, was accompanied by a substantive background report entitled Rebalancing the Load. The application sought a review of:

- Part VI of the *ARA* regarding rehabilitation.
- regulations covering fee structures for aggregates.
- development standards and building codes related to aggregate use.
- the need for a provincial aggregate conservation policy.

MNR's rationale for declining this second request was based in large measure on the fact that the ministry was already engaged in the review requested by Gravel Watch. A full review of MNR's handling of both applications will appear in our 2005/2006 annual report.

The ECO has a strong interest in this policy area, and believes there would be value in a thorough ministerial review of the issues raised by both the Gravel Watch and the Pembina Institute applications. MNR indicates that an interministerial committee has been struck to develop a draft conservation strategy for aggregate resources. The ECO welcomes this news and encourages the committee to include the recommendations contained in both applications among its deliberations. The ECO looks forward to the posting of the draft conservation strategy on the Registry for public comment. *(For ministry comments, see page 219.)*

Management Strategy for Double-crested Cormorants at Presqu'ile Provincial Park

Background

Gull and High Bluff Islands in Presqu'ile Provincial Park, located just south of the Town of Brighton, are home to a colony of double-crested cormorants, a fish-eating waterbird that nests on the ground and in trees. These islands are zoned "nature reserve," which means that they are being managed to "represent and protect Ontario's geological, ecological and species diversity."

The population of cormorants on the islands has increased from one nest in 1982 to 12,082 nests in 2002, and they now account for 40 per cent of cormorants on Lake Ontario, according to the Ministry of Natural Resources. By 2002, the cormorant colony had killed all of the trees on Gull Island and was in the process of killing the trees on High Bluff Island, particularly in the western woodland. This woodland is considered important because of the "age of the trees, the uncommon species association and the rarity of mature forest on islands in Lake Ontario." High Bluff Island is also home to three provincially significant colonial waterbird species that nest in the woody vegetation: the black-crowned night-heron, the great blue heron and the great egret.

2000 Research & Monitoring Program, and 2002 Management Strategy

In 2000, the Ministry of Natural Resources began a five-year Research and Monitoring Program in the Georgian Bay area to study the potential effects of cormorants on fish and wildlife populations and on vegetation. Cormorants are thought by some people to deplete local fish stocks, cause water quality and odour problems, spread disease and parasites, and pose risks to other wildlife and to rare habitats.

In 2002, MNR approved the Presqu'ile Provincial Park Cormorant Management Strategy, with the goal of protecting the aesthetic beauty of High Bluff Island, as well as the island's western woodland. According to the strategy, from 2003 to 2006, the number of cormorants on the islands would be reduced by oiling cormorant eggs in ground nests, harassing roosting birds, and destroying their nests on High Bluff Island. Although culling, i.e., shooting, was considered, MNR rejected this population control measure without a detailed analysis. The management strategy also included measures to minimize the impacts on the other colonial waterbirds nesting on the islands. In 2003, the management strategy was amended to allow egg-oiling of all cormorant ground nests found on both islands.

(Additional information about the 2002 Management Strategy and the Research and Monitoring Program can be found in the ECO's 2002/2003 annual report, pages 114-119, and Supplement.)

2004 Major Amendment to the 2002 Management Strategy

A study in 2003 of the vegetation on High Bluff Island found that most super-canopy trees had been killed and that cormorants were threatening the remaining vegetation. As a result, in 2004 MNR proposed that the 2002 Management Strategy be amended to allow more aggressive population control measures to take place from 2004 to 2006. Up to 6,000 tree-nesting cormorants on High Bluff Island would be culled, and harassment and nest destruction would be extended to any woody area of High Bluff Island. Public consultation on the 2004 Major Amendment followed the same process as for the 2002 Management Strategy, including a notice on the Environmental Registry with a 45-day comment period and direct mailings to interested parties.

Prior to MNR's approving the 2004 Major Amendment, the Ministry of the Environment received a "bump-up" request for the project under the *Environmental Assessment Act*. Although MOE denied the request and allowed the cull to proceed for 2004, it imposed the following conditions: one, that an assessment be made on the effects of the 2004 cull on cormorants, on other nesting colonial waterbirds, and on the health of the woody vegetation; and two, that a scientific committee analyze all information on the impact of the cormorant cull and make a recommendation to MNR about whether to proceed with the cull in 2005 and 2006.

EBR application for review

The ECO received an application for review from the Animal Protection Institute and the Animal Alliance of Canada, asking that the 2004 Major Amendment be reconsidered, citing numerous scientific and process concerns.

The applicants quoted a Minister's Decision Note dated April 12, 2000, that acknowledges that MNR and the Canadian Wildlife Service lack proof that cormorants are causing significant effects on any resource value in Ontario. Other concerns raised by the applicants include:

- Insufficient time has passed to determine the effectiveness of the non-lethal population control measures such as egg-oiling.
- MNR has not stated the acceptable number of breeding pairs of cormorants on High Bluff Island. The proposal implies zero breeding pairs.

- MNR has acknowledged that no species at risk and no protected species are affected, and that population control measures will cause damage to other nesting colonial waterbirds.

The applicants also had other concerns about the process used to make the 2004 Major Amendment decision, noting that MNR waited until March 2004 to say that a cull was necessary, in spite of being aware of the limitations of the other population control measures as early as 2000. This, the applicants alleged, made public comment largely irrelevant.

In a presentation to the Minister of Natural Resources, the applicants recommended that MNR take a "hands-off approach to wildlife management in Presqu'ile Provincial Park" and "promote provincial parks as evolving and dynamic ecosystems instead of managing them as green museums frozen in time, protecting 'desirable' habitat and wildlife species." They are also opposed to the ministry's "good" and "bad" species approach to wildlife management and believe that the "cull is about aesthetics, keeping High Bluff Island green and 'beautiful'."

Ministry response

MNR decided that a review was not warranted. The ministry emphasized that, contrary to what some of the public believe, concerns about the impact of cormorants on local fish stocks were not the basis for its decision to cull cormorants.

MNR reviewed the application against each of the criteria described in s. 67 of the *Environmental Bill of Rights*, for decisions made over five years ago. In summary, it noted that:

- The cull was consistent with the ministry's Statement of Environmental Values to ensure the long-term health of ecosystems and the protection of biodiversity.
- There was little potential that the environment will be harmed if the review was not done. The cormorant population will be controlled, not eliminated, in the park. MNR has taken measures to minimize the risk that other waterbirds may be affected by the cull.
- There has been strong public support for a management strategy for cormorants for years.

Results of the 2004 Management Program and Recommendations for 2005

In spring 2004, MNR culled 6,030 cormorants, oiled eggs in 3,284 ground nests, removed 2,098 tree nests and harassed roosting cormorants.

As requested by MOE, the Presqu'ile Double-crested Cormorant Scientific Review Committee presented its recommendations to the Minister of Natural Resources in January 2005. The Committee agreed that cormorants must "remain as an abundant tree-nesting species on High Bluff Island" and that "further loss of woody vegetation cannot be avoided" unless the number of cormorants was reduced. The Committee recommended that:

- culling of tree-nesting adult cormorants on High Bluff Island be continued in 2005 with a maximum of 5,500 cormorants to be shot.
- the goals and objectives of cormorant management at the Park be clarified.
- park users and the local public be educated about the bird colony and the effects of humans on the environment.

In March 2005, MNR announced that it planned to cull 5,500 cormorants in Presqu'ile Provincial Park in the spring.

ECO Comment

Whether or not to manage cormorants and how best to do it have been controversial issues for MNR. At the heart of the issue is whether or not cormorant populations should be managed in order to protect specific values such as habitat and fish populations. Although few would question the importance of protecting native habitats and biodiversity, there is often controversy over which habitats and species should be protected and how. Tough questions arise: does protecting native habitat mean that MNR should preserve the current ecosystem – or should natural processes be allowed to proceed even if the local ecosystem will be irrevocably altered and some species be devastated? The questions that the applicants raise are important and are beyond the scope of the 2004 Major Amendment.

Also at the heart of the issue is the adequacy of scientific information about cormorant behaviour and diet, which can vary from colony to colony, and about the interdependency of cormorants and other species, particularly other colonial waterbirds. The applicants and others continue to question the scientific basis for MNR's decisions. In our 2002/2003 annual report, the ECO recommended that MNR provide the public with the research results on a proposed cormorant Web site. It is the ECO's understanding that research is continuing; we urge MNR to make this information readily available to the public.

Although the ECO acknowledges that the use of population control measures, including culling, may sometimes be necessary, we believe that they should be used only in exceptional circumstances, such as the protection of rare species and ecosystems. Population control measures are a temporary solution that will need to be repeated for years to come unless the factors that contributed to the "over-population" are addressed. Population control measures are also expensive and labour-intensive. The other approach is to allow time for the ecosystem to reach a new equilibrium, as suggested by the applicants and others.

MNR has met most of the obligations defined in the *Environmental Bill of Rights* for considering applications for review. MNR could have denied the application simply on the basis that the 2004 Major Amendment had been decided within the last five years and therefore was exempt from review under the *EBR* unless certain conditions are met. The ECO is pleased that MNR provided a detailed explanation, using the criteria for the review of applications about decisions made over five years ago.

Although the ECO recognizes that cormorant management policies must ultimately be decided on a site-by-site basis based on local scientific information, there is currently no overriding provincial policy within which to make those decisions. The ECO believes that the lack of a provincial cormorant management policy is contributing to public tension. The applicants have raised important questions that deserve broad and thorough public discussion. The ECO recommends that MNR develop a provincial cormorant management policy to guide future decisions on local management issues at Presqu'ile Provincial Park and other locations in Ontario. *(For ministry comments, see page 219.)*

Species at Risk

Background

In November 2004, the Ottawa Valley Chapter of the Canadian Parks and Wilderness Society (CPAWS) filed an *EBR* application for a review of Ontario's *Endangered Species Act (ESA)* and Regulation 328, R.R.O. 1990. This Act is the primary legal mechanism used by the Ministry of Natural Resources to protect species "threatened with extinction." Regulation 328 lists the species covered by the Act.

CPAWS believes that the *ESA*, while allowing for the protection of some endangered species, has become "outmoded and inadequate as a legislative tool." Further, the applicants assert that the current legislation lacks the necessary scope to protect Ontario's species at risk from becoming endangered or extinct. The Act regulates only those species that the ministry considers to be "threatened with extinction," meaning only *some* of those species at risk which are "endangered."

Many species, such as the barn owl and the American badger, are not regulated under the *ESA* despite MNR's having identifed them as being endangered in Ontario. MNR also does not regulate species under the *ESA* that it has identified as "threatened" or as species of "special concern," in contrast to the federal *Species at Risk Act*. Only approximately a quarter of Ontario's 162 species at risk are afforded any of the limited protections of the antiquated *ESA* – and there have only been six prosecutions since its enactment in 1972.

The applicants contend that all species that are classified in MNR's Species at Risk in Ontario ("SARO") list, last updated in April 2004, warrant being regulated under the *ESA*. The SARO list details which species are endangered, threatened or of special concern. However, as a policy, the list lacks almost any legal authority, aside from identifying which species may have their habitat protected by means of the Provincial Policy Statement under the *Planning Act*. The Committee on the Status of Species at Risk in Ontario (COSSARO) is the body responsible for deciding on changes to the SARO list and, apart from one academic member, is composed entirely of MNR staff.

In January 2005, the ministry denied the *EBR* application, asserting that the public interest does not warrant a review. In an apparent contradiction, MNR then went on to state that the current Minister of Natural Resources and the Premier have publicly stated several times that, indeed, the government *will* initiate a review of the *ESA*. However, the details around process and timing have not yet been confirmed, according to the ministry.

ECO Comment

The ECO agrees with the applicants that a review of Ontario's *Endangered Species Act* is needed. A request to review a piece of environmental legislation that is more than 30 years old is an excellent use of the *EBR*'s application for review provisions. There is consensus among the leading experts on species at risk in Canada that an overhaul of Ontario's measures to protect species at risk is long overdue.

As reported by the ECO in 1999/2000 and 2002/2003, similar applications under the *EBR* to review the *ESA* were denied by the ministry. As with these cases, the ECO disagrees with MNR's decision to deny the review, since CPAWS has raised legitimate concerns in its request that all species at risk receive adequate legal protections. As reported in our 2002/2003 annual report (pages 134-138), the ECO noted that MNR had already identified internally the need to revise the *ESA* to harmonize it with the federal *Species at Risk Act*, which was passed by the federal government in 2002. Further, the ministry had committed itself publicly to developing a provincial species at risk strategy by 2003. At that time, the ECO recommended that "the Ministry of Natural Resources create a new legislative, regulatory and policy framework to better protect Ontario's species at risk and to conform with federal legislation." Since then, MNR has not revised the legislation nor has it introduced a species at risk strategy.

The current legislation neither requires nor even mentions recovery planning for species at risk. A recovery plan outlines the long-term goals and short-term objectives for recovering a particular species at risk. These plans include information on what is known about the species, the information that is still needed, the threats to its survival, and an identification of its critical habitat.

Current Status and Protections for Ontario's Species at Risk

MNR Status	Endangered (Regulated)	Endangered (Not Regulated)	Threatened	Special Concern
Number identified by MNR in Ontario (2004)	40	32	44	46
Definition	"A species facing imminent extinction or extirpation in Ontario that has been regulated under the *Endangered Species Act.*"	"A species facing imminent extinction or extirpation in Ontario which is a candidate for regulation under the *Endangered Species Act.*"	"A species that is at risk of becoming endangered in Ontario if limiting factors are not reversed."	"A species with characteristics that make it sensitive to human activities or natural events."
Prohibitions against wilfull killing, injuring, etc.	For all species, under the *Endangered Species Act.*	For select species, under the *Fish and Wildlife Conservation Act.*	For select species, under the *Fish and Wildlife Conservation Act.*	For select species, under the *Fish and Wildlife Conservation Act.*
Legal protection of habitat	Yes, under the *Endangered Species Act*. The Provincial Policy Statement also may protect "significant habitat."	Only through the Provincial Policy Statement, under the *Planning Act*, which may protect "significant habitat."	Only through the Provincial Policy Statement, under the *Planning Act*, which may protect "significant habitat."	No.
Recovery Planning	Not required by MNR, only done on a case-by-case basis.	Not required by MNR, only done on a case-by-case basis.	Not required by MNR, only done on a case-by-case basis.	Not required by MNR, only done on a case-by-case basis.
Examples of species	Peregrine Falcon, Eastern Cougar, Drooping Trillium	American Badger, Wood Turtle, Barn Owl	Grey Fox, Jefferson Salamander, Kentucky Coffee-tree	Eastern Wolf, Monarch Butterfly, Shumard Oak

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Extirpated species: "A species that no longer exists in the wild in Ontario but still occurs elsewhere."
MNR has identified 10 extirpated species in Ontario, including the Tiger Salamander and the Atlantic Salmon.

Extinct species: "A species that no longer exists anywhere."
MNR has identified six extinct species in Ontario, including the Eastern Elk and the Blue Pike.

In February 2005, MNR released its new strategic directions framework, entitled "Our Sustainable Future." This framework establishes new directions for the ministry in order to increase its emphasis and activities in several key areas, all with the underlying mission of "ecological sustainability." The conservation of biodiversity, including the protection of species at risk, is recognized as a ministry priority in the framework, which also commits MNR to revising the *ESA*.

In March 2005, MNR released the draft of Ontario's Biodiversity Strategy 2005 (see pages 67-69). As part of this initiative, the ministry states that it will "review and update Ontario's species at risk legislation to provide broader protection for species at risk and their habitats, and to include requirements for recovery planning, assessment, reporting and enforcement." However, the strategy does not include any timelines for the revision of the *ESA* or any plans for expansion of MNR's species at risk program.

MNR's new mission of ecological sustainability represents an ideal opportunity for the ministry to expand and develop programs that protect Ontario's species at risk. Such species merit protection for their own sake, but they also serve as a valuable barometer of the state of Ontario's natural environment. The ECO believes that concerted and measurable action by the government to protect these species will benefit all Ontarians.

Historically, one of the most significant challenges for the government has been engaging private landowners and addressing issues surrounding property rights. Private landowners have an essential role in protecting species at risk, particularly in southern Ontario. For example, the Carolinian ecological zone in southern Ontario covers only 1 per cent of Canada's land area, but it is home to approximately one-quarter of all of Canada's species at risk and one-quarter of the country's population.

In some instances, species at risk can be found only on privately owned land. The ECO raised concerns in our 1999/2000 and 2002/2003 annual reports that MNR was delaying the regulated protection of these species because of its protracted landowner consultations. However, MNR does have a valuable toolkit of existing programs that could be used effectively in this regard, such as the Conservation Land Tax Incentive Program and the Managed Forest Tax Incentive Program (see pages 137-142). While currently limited to tax incentives for protecting the habitat of endangered species, with only 99 private landowners receiving such tax credits, these programs could be expanded to provide financial incentives to private landowners to protect the habitat of all types of species at risk. The ECO also believes that property easements for conservation purposes could be utilized more broadly.

MNR's mission of ecological sustainability also gives the ministry an opportunity to take a greater role in protecting aquatic species at risk. The protection of aquatic species is a federal constitutional responsibility of the Department of Fisheries and Oceans (DFO), empowered under the *Fisheries Act* and the *Species at Risk Act*. MNR has voluntarily cooperated with the federal government on several multi-species recovery plans in Ontario. However, this remains a gray area of the law, since the DFO's jurisdiction is generally limited to federal lands or to what takes place in waters "frequented by fish." Threats to species at risk are not bound by such neat jurisdictional divisions, and what takes places on adjacent lands – the province's jurisdiction – is often equally important. The ECO encourages MNR to take an active role in protecting these species, similar to the way in which the province has already assumed responsibility for Ontario's lucrative sport fishery. *(For ministry comments, see page 219.)*

Bad Drainage Planning: The McNabb Drain

Two applicants requested an *EBR* investigation of the flooding and erosion of a stream channel and pollution of both the stream and Lake Simcoe that they believed resulted from changes to an artificial drainage system in Ramara Township. The applicants experienced the impacts of these problems in the McNabb Drain watershed beginning in 1998, allegedly caused by unauthorized construction of drainage works in the upper watershed. The application was sent to the Ministry of the Environment for a response to alleged contraventions of the *Ontario Water Resources Act (OWRA)*, the *Environmental Protection Act (EPA)*, and the *Environmental Assessment Act (EAA)*. The application was also forwarded to the Ministry of Natural Resources because the applicants alleged that unauthorized work on the drain had been done and had caused habitat disruption in contravention of the *Lakes and Rivers Improvement Act* and the *Fisheries Act*.

The McNabb Drain is an artificial drainage system that was originally established in 1903 as an "Award Drain" under the *Ditches and Watercourses Act*, which was repealed in 1963. Located in Ramara Township in the northeast quarter of the Lake Simcoe drainage basin, the McNabb Drain receives runoff from approximately 511 hectares of predominantly agricultural land. During the 1970s and 1980s, the Township of Ramara rezoned part of the upper watershed as industrial land and developed an industrial park. A quarrying operation also went into operation in this area. Subsequently, road drains and ditches in the area were rerouted, dug out and enlarged by the township and private landowners.

In spring 1998, flooding and damage occurred at a number of properties along the lower, natural section of the stream, and large sediment loads were observed entering Lake Simcoe. Between 1998 and 2002, erosion, flooding and sedimentation resulting from runoff and snowmelt continued to be observed. Eroded sediment carries phosphorus downstream and can fill in gravel bottom stream and lake areas, making them unsuitable for fish spawning.

It is noteworthy that Lake Simcoe is under an Environmental Management Strategy, which has a goal of improving and protecting the health of the Lake Simcoe watershed ecosystem. MOE, MNR, the Ministry of Municipal Affairs and Housing, and the Lake Simcoe Region Conservation Authority are all parties to the Strategy. Despite this broad environmental goal and other upstream wetland and fisheries concerns related to the drain, attempts in 1998 and 1999 by the downstream property owners to elicit support and action from some of these government agencies were not met with any meaningful response.

The flooding and erosion impacts experienced by the applicants led to a civil suit for damages initiated by them in 1999 and to years of hearings presided over by Ontario's Drainage Referee. Orders of the Drainage Referee led to the development of an interim control strategy in 2000 and a Drainage Engineer's report and plan for re-engineering of the McNabb Municipal Drain in 2002. Two stormwater management ponds, one servicing the industrial park and the other the Lafarge quarry operation property, were specified under the 2002 plan for the McNabb Municipal Drain to protect downstream riparian lands and Lake Simcoe from runoff from these areas. The applicants believed these facilities should require approval from MOE under the *OWRA*, following the Municipal Engineers Association (MEA) Class Environmental Assessment. The township held the view that they were exempted from the requirement for *OWRA* approvals and the Class EA because of exemptions in the *OWRA* and the *EAA* pertaining to agricultural drainage works.

Ministry response

MNR responded to the application, stating that it would not conduct an *EBR* investigation on the McNabb Drain, because under the *Lakes and Rivers Improvement Act*, approvals are not required for "installation or maintenance of a drain, subject to the *Drainage Act*." MNR forwarded the applicants' concerns regarding fisheries to Fisheries and Oceans Canada for its review. (The *Fisheries Act* and *Lakes and Rivers Improvement Act* issues are discussed in more detail in the Supplement, at page 315.)

Between summer 2002 and February 2004, prior to filing the *EBR* application, the applicants had been requesting intervention under the authority of the *OWRA* by MOE. In February 2004, MOE advised the applicants that their District office would be posting a proposed Director's Order for comment by the public on the Environmental Registry for a 30-day period, commencing March 1, 2004. MOE indicated that it had already been conducting an investigation in response to their complaints, but that it expanded the scope of the investigation in response to the *EBR* application. As a direct result of these processes, MOE finalized the Director's Order in August 2004 requiring the Township of Ramara and Lafarge Canada to undertake a number of actions. These included assessing and reporting on the sewage and drainage works constructed in the McNabb Drain watershed, and the submittal of an application for approval of any of those works, subject to section 53 of the *OWRA*. The ministry stated in its report that the McNabb Drain was "dysfunctional and unstable," but that it believed the response to this order would resolve the concerns of the applicants and prevent further adverse impacts in the watershed. As of March 2005, the township had submitted applications for section 53 *OWRA* approvals for the two stormwater management ponds in the industrial areas, and MOE was in the process of reviewing them.

ECO Comment

The McNabb Drain story highlights a number of issues of concern to the ECO. It illustrates the extensive environmental damage and expenditure of resources that can be incurred by drainage schemes that are not developed in a manner consistent with planning procedures specified by statutes, provincial policy, and ministry guidelines.

When a municipality is contemplating a drainage scheme, it has three main options. It can apply the *Drainage Act*, via a petition from constituent landowners, develop the project under the *Conservation Authorities Act* in cooperation with the local Conservation Authority, or use its authority under the *Municipal Act*. A typical scenario might involve a small but growing settlement where municipal drainage works upstream or downstream require upgrading. For decades, smaller municipalities have favored the *Drainage Act* as a way to proceed, partly because it provides a convenient way to develop an assessment schedule whereby all landowners will share the costs, and partly because of exemptions from environmental approvals under the *OWRA* and the *EPA*. Municipalities can also apply on behalf of all agricultural land owners for a grant of one-third of their assessments under section 88 of the *Drainage Act*. It may also be possible to obtain 50 per cent funding from MNR via the local Conservation Authority under the provisions of the *Conservation Authorities Act*, where flooding and erosion problems are being addressed. If, alternatively, the municipality uses the *Municipal Act* for a drainage project, the full cost of the project will be allocated through the municipal tax base. Clearly, use of the *Drainage Act* approach by a municipality has several features that commend it to a municipality faced with rural drainage issues.

However, the *Drainage Act* was never intended to provide for the development of drainage beyond an agricultural land use setting. It simply does not provide for the review and input of technical standards that would be required for urban stormwater management. As was the case of the McNabb Drain, use of the *Drainage Act* to provide drainage for urbanizing or industrializing areas can have extreme environmental consequences. In areas undergoing the "hardening" process of paving and building, and enclosing previously open drainage ditches into buried pipes, major changes in runoff intensity and volume occur that can have devastating impacts on downstream watercourses. In most of these cases, the municipality or project proponent should apply the MEA Municipal Class EA, design appropriate stormwater control measures, and apply to MOE for *OWRA* approvals. MOE's Stormwater Management Planning and Design Manual, reviewed in the ECO 2003/2004 annual report (see pages 106-110), provides procedural and technical guidance. Its application would result in a much higher level of downstream environmental protection than would be provided for under the *Drainage Act*.

> *In areas undergoing the "hardening" process of paving and building, and enclosing previously open drainage ditches into buried pipes, major changes in runoff intensity and volume occur that can have devastating impacts on downstream watercourses.*

The ECO is pleased with the response of the Ministry of the Environment to this *EBR* application. This represents the first known example of MOE's issuing a Director's Order to the proponents of an agricultural drainage scheme where the *OWRA* needed to be enforced. To prevent such confrontational situations, municipalities need to develop proper planning procedures for drainage in rural settings. The ECO believes that more resources should be committed to informing and educating staff of smaller municipalities on drainage planning issues. While there are many good stormwater management courses, seminars and workshops, they tend to be more accessible to the staff of larger urban municipalities. The Ministry of Agriculture and Food, MNR (perhaps through Conservation Ontario), and MOE could show leadership in this area and sponsor low-cost workshops and publications designed to better inform and educate smaller municipalities on stormwater management. In addition, smaller municipalities often have only part-time drainage engineers, thereby limiting their ability to review and develop drainage works and stay up to date on provincial initiatives and regulatory requirements. These initiatives would be particularly appropriate, given the Ontario government's plan to create a legislated basis for watershed-based source water protection. *(For ministry comments, see page 219.)*

Recommendation 10

The ECO recommends that OMAF, MNR, and MOE review current public policies related to drainage and stormwater management to ensure that ecosystem functions are safeguarded.

PART 6

Appeals, Lawsuits and Whistleblowers

Ontarians have the right to comment on government proposals, ask for a review of current laws, or request an investigation if they think someone is breaking a significant environmental law. But they also have other opportunities for using the *Environmental Bill of Rights (EBR)*. These include:

- The right to request appeals of certain ministry decisions.
- The right to sue for damages for direct economic or personal loss because of a public nuisance that has harmed the environment.
- The right to sue if someone is breaking, or is about to break, an environmental law that has caused, or will cause, harm to a public resource.
- The right to employee protection against reprisals for reporting environmental violations in the workplace and for using the rights available to them under the *EBR*.

Appeals

The *EBR* gives Ontarians the right to apply for leave to appeal ministry decisions to issue certain instruments, such as the permits, licences or certificates of approval granted to companies or individuals. The person seeking leave to appeal must apply to the proper appeal body, such as the Environmental Review Tribunal (ERT), within 15 days of the decision's being posted on the Environmental Registry. They must show they have an "interest" in the decision, that no "reasonable" person could have made the decision, and that it could result in significant harm to the environment.

During this past reporting period, concerned residents and environmental groups filed several leave to appeal applications on a range of approvals and orders issued by the Ministry of the Environment (MOE). The MOE instruments that were appealed included permits to take water (PTTWs) and certificates of approval (Cs of A). Discussion of two of these leave to appeal applications is set out below. (Further details on these applications are provided in the chart on leave to appeal applications found in Section 7 of the Supplement to this report.)

Status of Appeals

During the reporting period seven new applications for leave to appeal were initiated, one of which was granted by the ERT after the end of the reporting period. The ERT denied six of these applications after it determined that the applicants did not meet the test for seeking leave to appeal.

Leave to Appeal Application Results (as of March 31, 2005)

Leave Granted	0
Leave Denied	6
Leave Pending	1

MOE Instruments

Six "instrument holder" notices of appeal for MOE instruments were posted on the Environmental Registry during the reporting period. The *EBR* requires the ECO to post notices of these appeals, which are launched by companies or individuals who were the subject of a remedial order, were denied an approval, or were unsatisfied with its terms and conditions. The notices alert members of the public who may then decide to become involved with such an appeal.

MAH Instruments

During the reporting period the ECO posted nine notices of appeal on the Registry for instruments prescribed by the Ministry of Municipal Affairs and Housing. Residents, companies, or municipalities launched these appeals in relation to decisions made by MAH under the *Planning Act* to approve a municipality's official plan, an official plan amendment, and other approvals in areas of Ontario where no official plan is in place. It should be noted that there are hundreds of appeals to the Ontario Municipal Board every year regarding official plans, but under the *Planning Act* only a small number of approvals in a few geographic regions require direct approval by the Minister of Municipal Affairs and Housing. It is only these approvals that are prescribed as instruments under the *EBR* and for which notices of appeal are placed on the Registry.

MNR and MNDM Instruments

There were no instrument holder appeals or leave to appeal applications with respect to instruments prescribed by the Ministries of Natural Resources and Northern Development and Mines in 2004/2005.

Hamilton Bio Conversion Inc. Appeal

In this appeal, launched during the 2003/2004 reporting period, two applicants sought leave to appeal MOE's decision to issue a certificate of approval (C of A) to Hamilton Bio Conversion Inc. for a waste processing site. The facility, which had been processing organic waste into animal feed, was being given approval to process sewage sludge into fertilizer pellets. The applicants sought to appeal a change in the type of waste processed by the facility, arguing that the change would likely cause an increase in nuisance odours.

The ERT granted the applicants leave to appeal the C of A, noting that it would have been reasonable for MOE to have considered possible amendments to the proponent's C of A for air discharges under s. 9 of the *Environmental Protection Act* prior to approving the waste disposal site C of A. The ERT found that the applicants' concerns related to potential odour and contaminant emissions had not been considered and that there was significant potential for harm to the environment if the amendment to the C of A was granted.

After the parties decided to settle the dispute rather than proceed to a full ERT hearing, the ERT allowed the appeal in part. The Minutes of Settlement included the following conditions: that the proponent obtain approval for an amendment to its C of A for air emissions before receiving and processing municipal biosolids at the site; and that the proponent and the operator of the facility not use the waste-processing site for the simultaneous processing of food waste and municipal biosolids.

Public Nuisance Cases

Prior to 1994, when the *EBR* was brought into force, claims for public nuisances had to be brought by the Attorney General or with leave of the Attorney General. Under s. 103 of the *EBR*, someone who has suffered direct economic loss or personal injury as a result of a public nuisance can bring forward a claim and no longer needs the approval of the Attorney General. No new cases including public nuisance as a cause of action came to the ECO's attention during the reporting period, although the following case, launched in 2001, continues to move through the courts.

In previous annual reports, the ECO has described the public nuisance class action related to the Port Colborne Inco facility, *Pearson v. Inco Limited et al.* In March 2004, MOE agreed to an undisclosed settlement with the plaintiff, leaving Inco as the only defendant in the lawsuit. In February 2004, the Divisional Court upheld the lower court's decision that it was not appropriate to certify this as a class action. The plaintiff and class members appealed this decision to the Ontario Court of Appeal, and the appeal was heard on May 30, 2005. A decision in the appeal had not yet been issued as of mid-July 2005.

The ECO was given leave, in conjunction with the Canadian Environmental Law Association and Friends of the Earth, to intervene in this appeal on the issue of the representative plaintiff's liability for costs. The interveners submitted that cases involving damage to the environment, harm to public health or safety, and cases where the relief has direct or indirect implications beyond the interests of the

immediate parties are cases which are likely to invoke the public interest. If such a case is brought as a class proceeding, and not unreasonably so, an unsuccessful plaintiff deserves to be relieved of the burden of an adverse costs award. The ECO will report on the outcome of the intervention in a future annual report.

The Right to Sue for Harm to a Public Resource

The *EBR* gives Ontarians the right to sue if someone is violating, or is about to violate, an environmentally significant Act, regulation or instrument, and has harmed, or will harm, a public resource. To date, the only court action brought under the Harm to a Public Resource provisions of the *EBR* for which notice has been provided to the ECO is the proceeding started in 1998 by the Braeker family against the Ministry of the Environment and Max Karge, an owner of an illegal tire dump. Unfortunately, civil actions often take a long time to be resolved if there is no settlement, and the Braeker action is ongoing. The ECO will continue to monitor this case and will report on its ultimate conclusion.

Whistleblower Rights

The *EBR* protects employees from reprisals by employers if they report unsafe environmental practices of their employers or otherwise use their rights under the *EBR*. There were no whistleblower cases in this reporting period. Since the *EBR* was established, no complainants to the Ontario Labour Relations Board have invoked this right.

PART 7

Ministry Progress

The ECO follows up annually on the progress made by prescribed ministries in implementing recommendations made in previous years. The ECO has requested progress reports from those ministries on recommendations made in our last report and on key recommendations of previous years. In some cases, ministries submit updates on their own initiative, and these are also summarized in this section.

Ministry Responses to Past ECO Recommendations

Safe Drinking Water Act

To follow up on drinking water issues discussed in previous reports, the ECO requested an update from the Ministry of the Environment on proposed changes to O. Reg. 170/03, the Drinking-Water Systems Regulation under the *Safe Drinking Water Act* (*SDWA*) and related technical or guidance documents.

In May 2004, the Ontario government announced that it is investing over $400 million in its safe drinking water program, including money to allow more communities to upgrade and modernize their water treatment facilities and to help them meet standards set out in O. Reg. 170/03 and the *SDWA*. In 2004 Ontario dedicated half of MOE's 2004/2005 operating budget to initiatives related to providing safe drinking water.

In late June 2004, MOE announced it had finalized new regulations amending O. Reg. 170/03, giving owners of drinking water systems serving rural community halls, tourist operators and mobile trailer parks an extra six months to install treatment equipment. This extension applies to large community centres, town halls, motels, resorts, campgrounds and other tourist operators, mobile home parks, and rural subdivisions and apartments/condominiums. In addition, small municipally run community centres and town halls were allowed to post warning notices for six months rather than testing. Then, in December 2004, the ministry again revised the regulation, announcing further extensions of six to 18 months for small drinking water systems to comply with the new water treatment requirements.

In June 2003, MOE posted a proposal for a draft regulation related to enforcement of the *SDWA*. Section 168(4) of the *SDWA* requires the Minister of the Environment to make a regulation that outlines MOE's compliance and enforcement functions and the procedures to be followed when an Ontario resident files a request for an investigation of an alleged offence under the *SDWA*. In its March 2005 update for the ECO, MOE advised that the proposed Compliance and Enforcement regulation would come into force shortly. MOE has prepared an application form with instructions on how the public can file *SDWA* investigations, and the ministry has developed internal procedures to guide staff when they receive requests on how to file investigations. The ECO notes that these legal requirements and procedures appear to mirror many aspects of the *EBR* application process, and we commend MOE for following the *EBR* model.

In its March 2005 update to the ECO, MOE noted that it is not considering prescribing the *SDWA* provisions relating to water works certificates of approval as instruments under the *EBR*, mainly because most *SDWA* approvals are exempted under the Municipal Engineers Association Municipal Class Environmental Assessment. This means that Ontario residents cannot file *EBR* applications for review related to them. This is an unfortunate result, and the ECO urges MOE to reconsider this limitation on *EBR* rights, which seems contrary to the intent and spirit of the Walkerton Inquiry report.

MOE did acknowledge that it will consider prescribing other sections of the *SDWA* (such as licencing requirements) as classified instruments when these are proclaimed in force. The ministry also observed that the *SDWA* provides MOE with powers to issue orders to address drinking water health hazards, but "the bases for these orders are related solely to the protection of human health," contending that these orders "therefore do not fall within the ambit of the purposes of the *EBR* which is to protect the natural environment." MOE went on to note that the "timing of these orders is often critical, and any delay would result in a potential threat to human health." The ECO disagrees with MOE's characterization of the *EBR* as solely pertaining to the natural environment. Indeed, one of the objectives of the *EBR* is to promote a healthful environment for Ontario residents.

Environmental Assessment Review Process

The ECO made a number of recommendations and observations in the 2003/2004 annual report related to improving the environmental assessment process. The Minister of the Environment indicated in the legislature on October 21, 2004, that the Minister's Environmental Assessment Advisory Panel (MEAAP) would address the issues raised by the ECO. In early 2005, the ECO requested an update, including any reports and recommendations made by MEAAP.

The MEAAP Report was released in March 2005, for consideration by MOE. The MEAAP Report does echo and reinforce a number of the recommendations made by the ECO on environmental assessment issues. For example, the MEAAP Report (Recommendation 17) supports the ECO's view that public consultation practices under the *Environmental Assessment Act* should be consistent with the minimum rights enshrined in the *EBR*, particularly with regard to permits, licenses and approvals. Similarly, MEAAP and the ECO came to an identical conclusion regarding the need to amend the *Environmental Assessment Act* to provide a two-year (rather than the existing six-month) statute of limitations for prosecutions. Furthermore, the MEAAP Report also contained a number of recommendations (Recommendations 26-31) focused on strengthening MOE's capacity to undertake inspection and enforcement activities to ensure compliance with the *Environmental Assessment Act*. This is a problem that the ECO has raised in several recent annual reports (2001/2002 and 2003/2004).

The ECO also recommended in its 2003/2004 annual report that MOE address the difficulties faced by members of the public when trying to access relevant environmental assessment approval documents. Echoing this concern, the MEAAP Report suggested a number of principles that should be observed within the EA planning and decision-making process, including the following: "consultation documents must be accessible and understandable."

The Drive Clean Program

The ECO asked for an update on new developments in MOE's Drive Clean program, including the status of the use of the new MOBILE model to predict emissions reductions and the status of the 2002 and 2003 emissions reductions reports. MOE reported that it had worked with Environment Canada to finalize the new MOBILE model. The model was applied in estimating annual emissions reductions from light-duty vehicles between 1999 and 2003, compiled in a report which MOE committed to posting on the Drive Clean Web site and the Environmental Registry (which it did in March 2005, by posting Registry # XA05E0004). The ministry also reported that it had completed and posted an information notice about its emissions reductions report for heavy-duty vehicles for the years 2000-2002 in December 2004 (Registry # XA04E0017).

MOE also reported that the ministry had advanced its planned program review by a hired consultant, to be done in 2006/2007. Instead, the program review was commenced in January 2005. As part of the review, the consultant's evaluation, with a report to the minister, is scheduled for the summer of 2005. The ministry specified that improvements in vehicle emissions control technology and fuels and Drive Clean results would be among the factors considered in the consultant's review. The ministry plans to review the report's findings and invite public comment through the Registry before bringing forward program options for a decision by government.

Municipal Sewage Treatment Plants

The ECO's 2003/2004 annual report included a recommendation relating to sewer use bylaws. MOE responded that "the ministry is conducting a multi-year comprehensive policy review regarding municipal sewage treatment plants." The ECO requested an update on the progress of this review, including the type of public consultation planned by the ministry, the type of contextual information (e.g., overviews of sewage treatment plant performance trends) being prepared or used by the ministry, and how the ministry would share this information with the public. In March 2005, MOE responded that "the review of policies related to the management of sewage treatment plant discharges will be ongoing through 2006/07. Draft updated policies will be posted on the Environmental Registry for public comment. As part of updating the policies, a review of current monitoring data is being carried out to discern the performance of plants as well as the reduction of total loading from the sector to Ontario water ways. The ministry has also initiated additional sampling at sewage treatment plants for harmful pollutants and this work will be conducted in 2005." MOE did not explain how (or whether) its review of monitoring data would be shared with the public.

Mercury in the Ecosystem

The ECO's 2003/2004 annual report (page 122) recommended that "MOE establish a comprehensive program to develop an understanding of the pathways, movement and fate of mercury in Ontario's ecosystems." The ECO requested an update on MOE's work in this area. In March 2005, MOE responded that the ministry is currently conducting a pilot project to determine whether monitoring the mercury content of forest tree leaves is a viable method of estimating one component of the dry deposition of mercury. MOE also advised that it had "recently developed partnerships with Queen's University and with the University of Ottawa. The former will use the MOE's Sport Fish Contaminant Database to examine how watershed characteristics affect mercury accumulation in fish. The University of Ottawa study will focus on how watersheds store and release atmospherically deposited mercury. This work will also contribute to understanding the relationship between emission reductions and mercury accumulation in fish. The ministry participates in the Mercury Experiment to Assess Atmospheric Loading in Canada and the United States (METAALICUS) study (a mercury experiment to assess atmospheric loading in Canada and the United States). The study seeks to determine the relationship between mercury deposition and mercury in fish. This project has been underway since 2001 and is nearing completion."

PWQO for Nitrate

Provincial Water Quality Objectives (PWQO) are criteria established for the province's surface waters to protect aquatic life, and for some parameters, to protect recreational water uses. While there is an Ontario Drinking Water Standard for nitrate, no PWQO has been set to date. Last year, the ECO recommended that MOE adopt a Provincial Water Quality Objective for nitrate consistent with the Canadian Water Quality Guideline (CWQG) for this substance. MOE reported to the ECO in March that it will soon be posting a proposal for a new PWQO for nitrate on the Registry. It is expected that a decision as to whether to adopt the CWQG will be made by the end of the 2005 calendar year.

Regulation 903 – Wells Regulation

The ECO recommended that MOE ensure that key provisions of the Wells Regulation are clear and enforceable and that the ministry produce a plain language guide to the regulation. MOE indicated that it is undertaking education efforts of both well owners and well technicians, and that it has updated some brochures. However, MOE did not report that it had resolved some of the fundamental enforcement difficulties posed by the language of the regulation, nor has it yet released either a plain-language guide for well owners and the public or a comprehensive technical guide for the wells industry.

Prescribing the *Nutrient Management Act* under the *EBR*

For our 2004/2005 annual report, the ECO once again requested that both OMAF and MOE provide updates on prescribing the *NMA* under the *EBR* so that certain *EBR* rights will become available to the public, including applications for review, investigation and leave to appeal. The *EBR* also provides a means for instruments, such as certificates, licenses, orders, Nutrient Management Plans (NMPs) and Nutrient Management Strategies (NMSs) to be classified, and posted on the Registry so that the public can be advised of and participate in decisions on NMPs and NMSs that may affect them. The ECO believes that all instruments related to nutrient management for large agricultural operations should be prescribed under the *EBR*. This would also include biosolid application sites, which are currently exempt.

In 2002, OMAF indicated that it needed more time to understand the implications of prescribing the Act under most sections of the *EBR*. In late 2003, enforcement of certain aspects of the *NMA* was transferred to MOE from OMAF, and the two ministries have been working cooperatively to address the issues raised by the ECO. However, progress seems to be elusive. As of May 2005, neither OMAF nor MOE had posted a proposal notice on the Registry.

Prescribing the *NMA* under the *EBR* would support efforts to implement source water protection watershed plans in many parts of Ontario and reassure the public about transparency and accountability in *NMA* decision-making. The ECO urges these two ministries to complete their work as soon as possible and consult widely on their proposed approach to prescribing the *NMA* under the *EBR*. (For further discussion on the issue of prescribing new laws under the *EBR*, see pages 9-12 of this report.)

Protected Areas Legislation

In our 2001/2002 annual report, the ECO recommended that the Ministry of Natural Resources create a new legislative framework for provincial parks and protected areas, including conservation reserves, with the mandate of conserving biodiversity. In the fall of 2004, MNR launched a review of Ontario's protected areas legislation, including legislation for provincial parks, conservation reserves and wilderness areas.

The Ontario Parks' Board of Directors, whose members are appointed by the Minister of Natural Resources, will review input received and provide recommendations to the minister. MNR will then prepare draft legislation for introduction in the Ontario Legislature. Once introduced, the draft legislation will proceed through the normal legislative review process.

Protected Areas Management Planning

In our 2003/2004 annual report, the ECO recommended that MNR require the preparation and timely revision of management plans for all protected areas, including provisions for public consultation. MNR reported to the ECO that progress is being made with respect to preparing management direction for provincial parks and conservation reserves. Through the parks and protected areas legislation review, MNR has proposed that new legislation will require preparation of management direction, along with appropriate consultation.

Protected Areas and Mining Disentanglement

More than six years after the Ministry of Natural Resources announced the expansion of the protected areas system in its Ontario's Living Legacy (OLL) initiative, many of these sites still are not protected. An *EBR* application review in our 2001/2002 annual report revealed that many of the proposed provincial parks and conservation reserves had pre-existing mining tenure within their boundaries.

In March 2002, the Ministers of Natural Resources and Northern Development and Mines announced that a process would be initiated to examine options to address existing mineral tenure in these sites. Approximately 66 OLL sites contained hundreds of mining claims. Notable examples of these sites include Lake Superior Highlands Conservation Reserve and the additions to Killarney Provincial Park.

In late 2002 and early 2003, the Partnership for Public Lands and the Ontario Prospectors Association conducted closed-door negotiations with both ministries. By March 2003, these two stakeholders had reached agreement on how to resolve the mining disentanglement on a site-by-site basis, and had submitted their recommendations to MNR and MNDM.

In November 2004, the ECO informed both MNR and MNDM that it was greatly concerned that this issue remains unresolved, and that the time had come for a transparent and accountable public participation process to resolve this environmentally significant issue. In December 2004, the ministries replied that an announcement would be made shortly in response to the recommendations of the two stakeholders and that public consultation would occur.

In May 2005, MNR resolved the mining disentanglement issues for 45 of these sites. However, issues remain unresolved for the remaining 21 protected areas. The ECO urges both MNR and MNDM to begin consultation immediately to allow the public to evaluate and comment on the possible solutions to this issue.

Ecological Land Acquisition Program

The provincial funding for the acquisition and conservation of ecologically sensitive land expired at the end of the 2004/2005 fiscal year. The Minister of Natural Resources informed the ECO that his ministry is planning for a longer-term land acquisition program, and that this program will complement and help to implement other key government initiatives such as protection of lands in the Greenbelt.

Water Management Plans under the *Lakes and Rivers Improvement Act*

The ECO reported in 2002/2003 that a problem had arisen in that reporting period as a result of the passage of the *Reliable Energy and Consumer Protection Act, 2002*. This Act amended the *Lakes and Rivers Improvement Act (LRIA)* to allow the Minister of Natural Resources to order, under s. 23.1, that owners of waterpower facilities prepare or amend Water Management Plans (WMPs) to manage flows and levels of rivers. In late 2003 MNR began to post these orders on the Environmental Registry as information notices despite the fact that similar orders under the *LRIA*, relating to water levels of lakes or rivers where there are dams, are classified instruments under O. Reg. 681/94.

In January 2003, the ECO wrote to MNR requesting that the s. 23.1 *LRIA* orders be classified as instruments for the purposes of the *EBR* by amending O. Reg. 681/94. MNR responded in March 2003, stating that it would give serious consideration to the suggestion, but has taken no action since then. In its progress report to the ECO in March 2005, MNR indicated that it will continue posting WMPs as information notices, seeking comments, as an interim measure. In 2004/2005, MNR posted information notices for about 18 WMPs on the Registry, but did not take any action on the issue of amending O. Reg. 681/94 to make WMPs prescribed instruments. (For further information, see the Supplement, page 24.) The ECO urges MNR to begin the process of classifying these instruments.

Invasive Species Strategy

In our 2002/2003 annual report, the ECO urged MNR to create an invasive species sub-strategy as part of a provincial biodiversity strategy, urging that the sub-strategy include "a clearly identified vision, objectives, detailed courses of action, measurable targets and public reporting requirements." Subsequently, the Minister of Natural Resources announced that Ontario would begin working on an invasive species strategy in June 2004 that would complement the National Alien Invasive Species Strategy.

The ECO asked for an update on the development of this strategy. In March 2005, MNR stated that this strategy is "a component of Ontario's Biodiversity Strategy which is currently in development." The ECO fully agrees that addressing the threat of invasive species is an integral part of a biodiversity strategy, as was first suggested in our 2001/2002 annual report. However, the ECO believes that a provincial biodiversity strategy must be accompanied by *distinct sub-strategies* that target specific issues and provide detailed courses of action.

Lake Trout

The ECO reported its concerns about management of lake trout and lake trout lakes in our 2001/2002 annual report. The ECO requested an update from MNR, MOE and MAH on a Handbook on Lakeshore Capacity Assessment, and on the development of new Provincial Water Quality Objectives for phosphorus and dissolved oxygen for lake trout protection. In March 2005, MNR indicated that it is planning to post a notice on lake trout dissolved oxygen criteria on the Environmental Registry for public comment in the spring of 2005. MOE said that it expected to be posting a notice for the Handbook on Lakeshore Capacity Assessment on the Environmental Registry for public comment, also in spring 2005.

In the 2003/2004 ECO annual report, MNR indicated that it had completed a pilot State of the Resource monitoring program for lake trout and was considering options for a possible provincial level program. In its March 2005 progress report to the ECO, MNR stated that it will be considering the recommendations from the pilot study in the context of its new framework for fisheries management, which was announced in February 2005. The ECO urges MNR to give the lake trout component special consideration in ordering priorities for implementation of this new framework.

Aggregate Industry Compliance

The ECO's 2003/2004 annual report (page 63) noted that MNR "is still failing to meet its target of field auditing at least 20 per cent of licences. In fact, the success rate is declining: MNR audited 13 per cent of licences in 2002 and only 10 per cent in 2003." The ECO recommended that MNR ensure the aggregate industry complies with existing rules, and that MNR demonstrate that its compliance and enforcement program is working effectively. The ECO requested an update, including a report on the percentage of aggregate operations that were field audited in 2004. MNR responded that changes have been proposed within the recent Good Government Bill (*EBR* Registry #AB05E4001) to allow for the issuance of Part 1 tickets and "stop work" orders under the *Aggregate Resources Act*. MNR expects that these additional enforcement tools will allow the ministry to penalize violators more simply under the Act. With regard to an update on the percentage of aggregate operations that were field audited in 2004, MNR noted that this information would not be available until May/June 2005, since it is collected on a fiscal-year basis.

Aggregate Resource Status

Last year the ECO asked MNR if the ministry was preparing an update to the 1992 "State of the Resources" study on the status of aggregate resources in Ontario. MNR replied in March 2004 that it would discuss the possibility with the Board of Directors of the Ontario Aggregate Resources Corporation (TOARC), since that corporation has assumed responsibility for conducting research on aggregate resources management. The ECO had requested an update in early 2005. It appears to the ECO that no progress has been made on this matter. MNR replied in March 2005 that the ministry "recognizes the need for improved up-to-date resource information with respect to resource availability, and supply and demand in order to make informed resource planning and land use decisions. The ministry is currently considering options to address this issue which include submitting a proposal to the Board of Directors of TOARC. To date, a proposal has not been developed."

Forestry Compliance

The ECO suggested in the 2003/2004 annual report that MNR take a number of steps to improve the forestry compliance system, including reviewing its instrument classification regulation. In early 2005, the ECO requested an update on the ministry's progress in implementing its forest compliance review action plan.

In its update, MNR noted that the revised Guideline for Forest Industry Compliance Planning and its associated Forest Operations Information Program policy and procedure were posted on the Registry for public comment in November 2004, and the decision notice to proceed with the Guideline, policy and procedures was posted in February 2005. MNR said the ministry will continue to post proposed revisions to the Forest Compliance Handbook on the Registry for public comment. But MNR does not consider the Independent Audit Process and Protocol to be a policy, nor to be subject to posting. MNR has also committed to carrying out a review of the independent forest audit process every five years, with an opportunity for public input.

In response to the ECO's suggestion that Independent Forest Audits evaluate and report on the self-inspection capacity of forestry operators, MNR responded that the requirement for auditors to examine the full compliance program has been part of the IFAPP since 1998, and that since that time, the auditors have been required to review annual and five-year compliance plans of both MNR and Sustainable Forest Licence holders, and to determine whether they were appropriate, whether they were followed, whether they were effective in monitoring compliance, and whether operators are trained and knowledgeable. The ministry also said that it agrees with the ECO suggestion that audit reports be released more quickly, and that they be more easily accessible to the public.

In response to the ECO suggestion that public analyses of forestry inspections include data on minor infractions, which MNR categorizes as "In Compliance With Comments," MNR reported that management unit annual reports have been posted on its Web site http://ontariosforests.mnr.gov.on.ca/compliance.cfm for the past three years and that data on minor infractions have been included in the reports. Inspections that are "In Compliance With Comments" are not considered to be of non-compliant status by MNR. The ministry also said that it will consider standards and guidelines for rutting during the development of a forest management site guide, to be initiated in spring 2005.

MNR – Managed Forest Tax Incentive Program

MNR provided the ECO with an update on the Managed Forest Tax Incentive Program. (For more detail about the MFTIP program developments, see pages 137-142.)

Oak Ridges Moraine Conservation Act

The ECO has been tracking implementation of the *Oak Ridges Moraine Conservation Act (ORMCA)* and the Oak Ridges Moraine Conservation Plan (ORMCP) since the *ORMCA* was passed in December 2001. In March 2005, MAH provided the ECO with an update on its progress in implementing the *ORMCA* and ORMCP.

MAH has reiterated that it is committed to prescribing the *ORMCA* for the purposes of the *EBR* and to classifying two instruments under the Act: orders to amend an official plan or zoning by-law to conform to the ORMCP; and approvals of official plan amendments and zoning by-law amendments bringing them into conformity with the Plan. (For further information, see the Instruments section of this report, pages 14-19.)

Technical Guidance Documents

During the reporting period, the government continued work on implementing the ORMCP. MNR prepared and consulted on eight Oak Ridges Moraine Technical Guidance Documents on various aspects of natural heritage. All eight of these technical guidance documents were posted on the Environmental Registry for public notice and comment, and a number of comments were received and considered. MOE has also prepared nine Oak Ridges Moraine Technical Guidance Documents related to water issues, and plans to post them on the Environmental Registry for public notice and comment as MNR did. MAH noted the potential for these 17 technical guidance documents to be used more broadly in the context of the Greenbelt Plan, which encompasses all of the ORMCP area and uses similar technical terms and definitions.

MTO has developed a final draft of another technical guidance document: the Wildlife and Transportation Reference Document for the Oak Ridges Moraine. This paper addresses the environmental requirements of the ORMCP for highway construction and, in particular, facilitating wildlife movement and maintaining ecological integrity. It will also be posted on the Environmental Registry for notice and comment.

Systems for Monitoring and Evaluating the Oak Ridges Moraine Conservation Plan

MAH stated that work on the terms of reference, work plan and draft monitoring strategy for the ORMCP did begin, but was put on hold by the introduction of the Greenbelt Plan. Because the Greenbelt Plan encompasses the ORMCP area and proposes the establishment of a monitoring and performance measurement framework similar to that of the ORMCP, MAH is planning to undertake a process to explore the coordination of a comprehensive monitoring and performance measurement framework for both initiatives.

Classifying Instruments under the *Oak Ridges Moraine Conservation Act*

As noted earlier in this section, the ECO has been tracking implementation of the *Oak Ridges Moraine Conservation Act (ORMCA)* since the Act was passed in December 2001. The ECO was pleased to report that in March 2002 MAH had responded positively to a request that it consider prescribing the *ORMCA* under the *EBR*, and that the ministry intended to prescribe the Act under the *EBR* to ensure that the public receives notice and has the opportunity to comment on regulations and instruments related to the *ORMCA*.

We reported in 2002/2003 that MAH was still in the process of prescribing the *ORMCA* under the *EBR* and intended to classify two instruments under the Act: orders to amend an official plan or zoning by-law to conform to the Oak Ridges Moraine Conservation Plan; and approvals of official plan amendments and zoning by-law amendments bringing them into conformity with the Plan. We also advised that MAH expected to issue approximately 30 of these instruments in total and they would probably be issued before October 2003. However, it is apparent that MAH was unable to meet its original timeline. Thus, in 2004/2005, MAH posted 13 information notices with an opportunity for public comment for official plan amendments related to *ORMCA* implementation. (For further information, see the ECO 2004/2005 annual report Supplement at page 18.)

To avoid the repetition of a similar problem in relation to Greenbelt Plan instruments that will be issued under the *Greenbelt Act*, the ECO urges MAH to commence work as soon as possible on formally prescribing the *Greenbelt Act* under the *EBR* so that amendments to O. Reg. 681/94 can be passed before these instruments are proposed and finalized.

Management Board Secretariat and Ministry of Energy

In 2002/2003, we recommended to the Ministry of Energy and Management Board Secretariat that they take full advantage of the Environmental Registry to consult on environmentally significant proposals. In 2005, ENG reported that it posted three proposals with 45-day comment periods for Bill 100 in summer 2004, as well as a net metering regulation and energy efficiency standards in early 2005. ENG indicated that all written submissions will be reviewed as part of the consultation process and further action will be taken. MBS had not posted a proposal on the Environmental Registry since 1997 despite being the ministry leading the effort at government-wide energy conservation.

SEVs

Ministries prescribed under the *EBR* are currently reviewing and revising their Statements of Environmental Values. Please see pages 13-14 of this report for details.

(For ministry comments, see pages 220-221.)

Ministry Cooperation

The Environmental Commissioner of Ontario and staff rely upon cooperation from Ontario's provincial ministries to carry out the mandate of the ECO. We are in frequent contact with staff of the prescribed ministries and agencies with requests for updates and other information. Clear, prompt responses from ministries allow the ECO to conduct reviews of the ministries' environmentally significant decisions in an efficient and straightforward manner. Section 58 of the *Environmental Bill of Rights* requires the ECO to include in our annual report to the Ontario Legislature a statement on whether or not prescribed ministries have cooperated on requests by the ECO for information.

Staff of the prescribed ministries are generally cooperative in providing information when it is requested. The 14 prescribed ministries and two agencies (the Technical Standards and Safety Authority and the Ontario Realty Corporation) each have one staff person who is designated as an *EBR* coordinator or contact. Most of the day-to-day interaction between the ECO and the ministries occurs via these coordinators, who provide a pivotal role in delivering effective *EBR* implementation. Among other things, these individuals are responsible for coordinating the ECO's access to documents needed for reviewing ministry decisions posted on the Registry. For the *EBR* coordinators at the Ministries of the Environment and Natural Resources, this can be a significant workload, and the ECO is pleased to report that these documents are usually provided promptly. The ECO also directly contacts ministry staff responsible for program delivery with detailed information requests related to ministry programs.

The ECO makes monthly requests for information to the Ministry of the Environment's *EBR* Office (EBRO) and to the *EBR* coordinators of other ministries when Registry decisions are posted. During this fiscal year, MOE was generally very cooperative with the ECO in meeting our requests for information, although in some cases fairly lengthy delays were experienced before the requests were met.

During this reporting year, the ECO undertook a project to look at how MOE was applying its new protocols for updating certificates of approval for sewage works, water treatment works, air emissions and waste management. At our request, MOE Approvals and Regional staff provided a considerable amount of documentation pertaining to a representative sample of certificates issued under this system. Approvals staff and managers were cooperative, providing adequate information, documentation and summary tables to assist in the project.

On another project, the ministry's cooperation was less forthcoming. While the ECO was analysing an application for review concerning amendments proposed to Regulation 903 R.R.O. (water wells), and reviewing an MOE decision on amending this regulation, we became aware of a ministry internal report that provided a critical appraisal of the proposed changes in practices. When the ECO made a request to the ministry for a copy of this report, the ministry chose not to provide the requested report, but suggested a meeting instead. Although the ECO appreciated the meeting, had the ministry instead provided the report, it would have assisted the applicants, the ECO, and the general public to gain a better understanding of the technical issues surrounding water well installation and maintenance.

Among other research undertaken this year, the ECO looked at the Ministry of Transportation's Class EA and provision for landfill leachate treatment in Ontario. As a result, several requests were made to MOE's Approvals and Assessment Branch and Water Policy Branch for information on policies and procedures and ongoing research progress. Responses were often made quickly, while more complex issues were addressed within weeks. Generally, the Ministry of the Environment was highly cooperative in assisting the ECO in these investigations.

The Ministry of Natural Resources was generally cooperative, assisting the ECO with routine requests for information and data. During our research on alien invasive species, the management of Southern Ontario forests and aggregates licensing, the ECO contacted ministry staff of various branches working on these issues, and they were very helpful in providing detailed information. In response to another inquiry about changes to the ministry's Free Use Policy for Crown land, ministry staff visited the ECO and provided staff with information and documentation related to the policy. However, the ministry failed to provide a response, in writing, to the ECO's questions about why the policy changes had not been posted for public consultation on the Registry.

This year the Ministry of Energy was involved in a number of issues of environmental significance of interest to the ECO. The ministry's staff were cooperative and kept the ECO informed of developments and use of the Registry for its proposed regulation on net metering.

ECO staff contacted the Management Board Secretariat on two occasions during the year. On one occasion, staff there were initially helpful, but never responded to follow-up requests by telephone and e-mail. This makes it difficult for the ECO to fulfil its mandate of holding the government accountable. *(For ministry comments, see page 221.)*

The ECO Recognition Award

Every year, the Environmental Commissioner of Ontario formally recognizes ministry programs and projects that best meet the goals of the *Environmental Bill of Rights* or are using best internal *EBR* practices. The ECO invites ministries prescribed under the *EBR* to submit programs and projects that meet either of these criteria. This past year, six ministries responded to our call for nominations, submitting a total of seven projects for the ECO to consider. An arm's-length panel reviewed the full list of submissions and provided advice to the ECO on the selections for our 2004/2005 ECO Recognition Award.

Of the many worthwhile projects nominated this year, three have been singled out for their particularly noteworthy contributions. The following two runner-up projects deserve honourable mention.

The ECO recognizes the Ministry of Transportation for its use of Cold In-Place Recycling with Expanded Asphalt. This environmentally friendly pavement rehabilitation technology reuses 100 per cent of a roadway's existing aggregate and asphalt material, thereby eliminating the need to haul old material off-site or consume new resources in roadway reconstruction. Further, the process does not require heating roadway materials, thereby introducing significant energy savings when compared to traditional road replacement practices.

The ECO also recognizes the Ministry of Natural Resources and the Ministry of Agriculture and Food for their role in an Invasive Forest Pests program focused on controlling and eradicating the Asian long-horned beetle and the emerald ash borer in order to protect biodiversity in the province. The program represents a collaborative effort between these ministries, the Canadian Food Inspection Agency, municipalities and other stakeholders. Collaboration has succeeded in levering additional program funding and facilitating coordination and cooperation, thereby enhancing the overall effectiveness of the program.

This year's ECO Recognition Award is being presented to officials and staff within the Ministry of Municipal Affairs and Housing, the Ministry of Natural Resources and the Ministry of the Environment for their efforts to save the Alfred Bog. The ECO is pleased to recognize these ministries for their concerted efforts to preserve this vulnerable ecosystem.

Located in the United Counties of Prescott and Russell, the Alfred Bog is southern Ontario's largest remaining domed peatland and is home to significant plant and animal species. But the Bog has been vulnerable to ecological degradation since the 1880s when peat extraction began at the site. The Bog was designated as a conservation zone at the municipal level in 1978, but in 1982 a landowner submitted an application to change the zoning of a sizeable portion of the Bog to agriculture, which would permit peat farming or drainage for other agricultural uses. This renewed fears about the future ecological integrity of the Alfred Bog. A 20-year effort, spearheaded by regional and local environmental organizations and supported by both local stakeholders and the province, has culminated in the protection of approximately 7,550 acres of the remaining 10,300 acres of Bog area.

In 1999, the United Counties of Prescott and Russell adopted and the province approved an official plan that included policies designed to protect the Bog. These elements of the official plan were appealed, and the province subsequently determined that it needed to assume a lead role if the Bog was to be protected. Provincial inter-ministerial cooperation played a significant part, with MAH drawing on technical advice and expertise from both MNR and MOE to establish that the Bog is an area of provincial interest. Over a four-year period, the ministries worked to resolve the appeals to the official plan. The appeals were ultimately settled, partly through the purchase at fair market value of any remaining portions of the Bog that were slated for peat extraction. Over 75 per cent of the remaining Bog area is now in public ownership.

The ECO applauds these ministries for their contribution to efforts to protect the Alfred Bog.

PART 8

Developing Issues

Each year the ECO identifies several "developing issues." These are issues that may be escaping public attention, but have the potential for significant environmental impacts, and so deserve greater prominence and stronger government effort. This year, the ECO has highlighted five "developing" areas of concern:

- pharmaceuticals in Ontario waterways.
- control of invasive alien garden plants.
- management of peatlands.
- sustaining urban forests.
- energy efficiency in government buildings.

These topics are quite diverse, but the first four share a key characteristic – several levels of government and different ministries have jurisdiction over aspects of the problem. Shared jurisdiction often can mean that a particular ministry may be reluctant to assume ownership of the issue or show leadership on developing solutions. Several of the highlighted issues also require public education and behavioural changes by all of us. How we dispose of the drugs in our medicine cabinets, what we choose to grow in our gardens, and how we care for neighbourhood trees have implications for the environment. By comparison, improving energy efficiency in government buildings would seem a simple matter, largely under the control of one ministry, and readily measurable. Nevertheless, the ECO's review shows many foregone opportunities to cut energy consumption in government buildings.

Human Pharmaceuticals in the Aquatic Environment: An Emerging Issue

Advances in analytical chemistry have permitted the detection of pharmaceuticals in aquatic environments and drinking waters in numerous countries throughout the world. Although the substances are present in very low concentrations – far below their original therapeutic levels – their presence in the environment has raised concerns about possible adverse impacts on aquatic wildlife and humans. The recent detection of a number of pharmaceuticals in Ontario sewage treatment plant effluents and drinking waters prompts questions about the steps that provincial ministries are taking to address this emerging issue.

What are pharmaceuticals?

Pharmaceuticals are chemical substances used in medical diagnostics and to achieve therapeutic and other desired physiological responses (e.g., synthetic hormones in oral contraceptives). They are bioactive (having effects on living organisms), and in some cases, toxic by design (e.g., in cancer treatment). Pharmaceuticals comprise a large number of diverse but mostly organic molecules that range in size. They can be grouped according to their general uses – for example, antibiotics, anti-epileptics, anti-inflammatories, cancer treatment drugs and oral contraceptives. Pharmaceuticals are typically formulated to be highly soluble and are not completely broken down by the body. Over 23,000 drugs, comprised of over 3,300 different ingredients, are registered for human use in Canada.

In addition to being widely consumed by humans, pharmaceuticals are also used extensively in agriculture in Ontario to prevent and cure disease and enhance growth in animals. Four antibiotics are registered for use in aquaculture in Canada for therapeutic purposes only.

How do they enter the environment?

Researchers believe that drugs used by humans enter the environment predominantly via sewer systems. Individuals ingesting drugs make substantial contributions, since only 30 to 70 per cent of ingested drugs are broken down by the body. The amount and potency of drugs released as sewage from hospitals and nursing facilities may be particularly significant.

Expired and unused medications disposed of via sinks or toilets also flow to sewage treatment plants (STPs). A 2002 Health Canada survey found that approximately 20 per cent of Canadians disposed of unused prescription and non-prescription drugs to household drains over the preceding 12-month period. Pharmacies may also constitute a source of releases to Ontario's STPs, even though Ontario pharmacies are expected to dispose of unused and returned medications in alternative ways. An Ontario pharmacist who routinely disposed of an array of unused pharmaceuticals in the municipal sewer – including narcotics, antibiotics and toxic cancer drugs – was caught doing so in September 2003. While accidental releases to sewers from Ontario's 140 pharmaceutical manufacturing facilities may occur, it is thought that these facilities normally generate little waste product due to the high cost of ingredients and stringent safety practices.

The fate of pharmaceuticals in STPs is an emerging area of research. They can be degraded, captured in the sewage sludge, or remain dissolved in the liquid phase. Studies comparing levels in STP influents to effluents provide evidence that many pharmaceuticals are degraded to a degree in the plants. However, the presence of drugs in effluents and surface waters in Ontario and other jurisdictions is evidence that the STP technology and processes commonly used do not completely break down all drugs.

The extent to which a drug is removed in a STP depends on the drug's structure and properties and the treatment technology employed. (For more information about STPs in Ontario, refer to pages 35-49 in the ECO's 2002/2003 annual report.) Preliminary studies suggest that a number of pharmaceuticals tend to dissolve in water instead of sludge. Some studies also indicate that most of the breakdown that does occur within STPs results from biological degradation during secondary treatment. A study involving select synthetic estrogens, antibiotics and anti-inflammatories found that, up to a point, longer aeration during secondary treatment results in greater degradation.

Pharmaceuticals remaining in the liquid phase after treatment, including antibiotics and estrogens, are discharged directly to surrounding surface waters. In some cases, such as during combined sewer overflows or system malfunctions, pharmaceuticals in the sewage system escape treatment altogether. (For further information on sewage bypassing treatment, refer to pages 41-42 in the ECO's 2002/2003 annual report.) When sewage sludge is applied to farmland as fertilizer, pharmaceutical residues in the sludge may also be introduced to the environment.

In addition to entering the environment via STPs, pharmaceuticals may seep into the environment via septic systems and from buried (and often heavily medicated) bodies. Pharmaceuticals also enter the environment through landfills. A 2002 Health Canada survey found that 50 per cent of Canadians had disposed of unused non-prescription drugs and 39 per cent had disposed of unused prescription drugs via the regular household garbage waste stream in the preceding 12-month period.

In addition to pharmaceuticals, many personal care products such as insect repellants, deodorants and perfumes also enter the sewer system. While the threat posed by these substances is even less well understood than that by pharmaceuticals, some are known to exist and persist (e.g., synthetic musks used in perfumes) in the environment.

Environmental occurrence and exposure

Contraceptives, lipid regulators, painkillers, antibiotics, anti-cancer drugs, anti-epileptic drugs and blood pressure regulators have been detected in surface waters in Ontario or other jurisdictions throughout the world at levels ranging from parts per trillion (ppt) to low parts per billion (ppb). To date scientists have looked for only a fraction of the drugs in commercial use. This effort is constrained in part due to analytical limitations posed by the unique nature and low environmental levels of the compounds.

While many pharmaceuticals do not break down immediately in the environment, biological and photochemical processes do break them down over time. Yet despite the eventual break down of most substances, pharmaceuticals can nonetheless assume a quality of "persistence" in aquatic ecosystems because of their continual discharge from STPs. Ambient water concentrations encountered by aquatic organisms vary, depending on how close they are to an STP outflow. The observation that fish may be drawn to sewage outflows – STP effluents are rich in nutrients that serve as food for the micro-organisms that fish eat – is a concern.

Drug residuals have been detected in treated drinking water supplies in Europe, the U.S. and, more recently, Ontario. In November 2004, the federal government reported on its first study of acidic pharmaceuticals in drinking water, confirming that traces (ppt) of certain drugs – namely, anti-inflammatories, anti-cholesterol drugs and anti-depressants – are ending up in Ontario's drinking water plants. The highest concentrations were found at plants on rivers downstream from STPs.

Environmental and human health effects

Some studies provide strong evidence that synthetic estrogens in the aquatic environment may be causing adverse effects in wildlife at current levels of exposure. For example, in a controlled study conducted in the remote "Experimental" Lakes Area of northwestern Ontario, researchers found that experimental exposures led to the feminization of male fish, delayed reproductive development in female fish and negative effects on kidneys and livers of both sexes. Throughout the two-year study, average lake concentrations of synthetic estrogen was maintained at 6.1 ppt, within the range present in a typical U.S. urban waterway.

With the exception of synthetic estrogens and possibly a few other drugs, the question of whether the levels of pharmaceuticals in the environment are causing adverse impacts on wildlife and humans is, for the most part, either uninvestigated or difficult to answer conclusively. Except where controlled studies involving environmentally relevant exposures of organisms in their environments are possible, establishing causal relationships is challenging.

... the fact that pharmaceuticals are bioactive and, in some cases, toxic has raised concerns that adverse effects may be occurring, even at low doses . . . . There may also be stages of development during which organisms are exquisitely sensitive to exposures of very tiny amounts.

Nonetheless, the fact that pharmaceuticals are bioactive and, in some cases, toxic has raised concerns that adverse effects may be occurring, even at low doses. Some scientists are concerned about the possible additive or interactive effects resulting from the exposure of organisms to a "chemical brew" of pharmaceuticals and other contaminants. There may also be stages of development during which organisms are exquisitely sensitive to exposures of very tiny amounts.

Some researchers have postulated that trace pharmaceuticals could play a role in triggering sudden acute effects, such as sudden massive fish die-offs. Many researchers believe, however, that available evidence suggests that more subtle effects may be occurring, such as neurobehavioural changes, physical deformities, and abnormal reproductive system development, which tend to have latent onset.

The continuous flow of antibiotics into the environment has also raised concerns that new strains of bacteria may develop, multiply and travel through the environment, potentially harming wildlife and reaching humans through the consumption of fish and drinking water. There is evidence that human over-consumption and misuse of antibiotics contributes to antibiotic resistance. While there is little solid evidence that antibiotics in the environment are promoting antibiotic resistance, a recent study by Canadian scientists concludes that this possibility cannot be ruled out. Scientists have also raised concerns about the effect of antibiotics on the beneficial microbes used to break down organic matter in STPs.

While there is no clear evidence linking trace exposures in drinking water to adverse outcomes in humans, some toxicologists believe that human exposure risk cannot be discounted.

Addressing the issue

In Canada, responsibility for the approval and disposal of pharmaceuticals is shared across jurisdictions. The federal government is responsible for the pre-market assessment and registration of pharmaceuticals. In 2001, Health Canada began to develop environmental assessment regulations to apply in the pre-market assessment of pharmaceuticals and personal care products.

The Ministry of the Environment is responsible for the legal and policy framework for solid waste disposal and sewage treatment, while municipal governments oversee the actual disposal of solid waste and the operation of waterworks. Ontario Regulation 347 (General Waste Management) under the *Environmental Protection Act* sets out requirements for the management and disposal of hazardous waste. The regulation specifically designates certain concentrations of a select number of pharmaceuticals as hazardous waste. MOE also issues certificates of approval to municipal STP operators that stipulate, among other things, specific effluent limits for some pollutants. Municipalities may adopt sewer-use bylaws limiting the type and amount of substances that may be disposed of via the drain. However, limits for pharmaceuticals are not specified in certificates of approval for STPs or in sewer-use bylaws.

Presently, MOE continues to develop analytical methods to increase the number of pharmaceuticals that can be measured in the environment. The ministry is also involved in several multi-year studies, led by Environment Canada, which are designed to quantify the occurrence of select pharmaceuticals in STP effluents, sewage sludge and drinking water in Ontario, as well as to examine removal techniques. MOE should continue to undertake and support such efforts to better understand the risks to Ontario's ecosystems and to Ontarians.

While many pharmacies in Ontario do take back unused or expired pharmaceuticals, there is currently no province-wide formalized program or requirement that pharmacists do so. Regulated or voluntary province-wide take-back programs have existed for years in provinces such as British Columbia and Alberta. In June 2002, MOE passed the *Waste Diversion Act* and announced that waste diversion programs would be developed for a number of waste materials, including pharmaceuticals. While programs for a number of other waste materials were under development as of summer 2005, development of a program for pharmaceuticals had not yet begun. The ECO encourages MOE to move quickly on this commitment and to require Waste Diversion Ontario to develop a program that includes effective public education.

In the meantime, MOE should work with key groups to reduce the entry of pharmaceuticals to the environment. MOE should engage with Ontario's biomedical waste management companies that are responsible for hauling waste to get a picture of whether there may be improper disposal practices that need to be addressed. MOE should also encourage pharmaceutical manufacturers to reduce loads to sewers through life-cycle management practices. Ontario's Environmental Leaders Program could be used as a mechanism for doing so. Perhaps the Ontario College of Pharmacists could be engaged to play a larger role in promoting the proper disposal of drugs by pharmacists and in encouraging pharmacists to promote proper disposal practices to their customers.

MOE addressed its September 2003 discovery of the pharmacist who was regularly disposing of pharmaceuticals in the sewer by requesting that the pharmacy owner register the waste with the province and dispose of future waste via a ministry-approved company. The ministry also issued a Provincial Officer's order requiring that the owner stop receiving pharmaceutical waste from doctor's offices and medical clinics. MOE should consider whether its regulatory tools for addressing disposal of pharmaceuticals via the sewer by pharmacies and other entities are adequate, and should rigorously enforce compliance with requirements.

Conclusion

Although pharmaceuticals play an important role in society, it is now recognized that their presence in the environment may pose risks to ecosystems and to human health. The issue of pharmaceuticals in the aquatic environment demands attention, further elucidation and action in Ontario. In the future, as new drugs are developed, and as the population grows and baby boomers age, the use of pharmaceuticals is expected only to increase. *(For ministry comments, see page 221.)*

Building Conservation in Ontario

Introduction

In April 2004, the Ontario government set a goal to reduce the electricity consumption of government operations by 10 per cent by 2007 – a laudable goal, considering that the province's electricity demand sometimes exceeds its generating capacity, making imports or conservation measures necessary. Ontario's electricity-generating infrastructure is also aging and needs replacement. The province is adding new generating capacity, but this takes time to bring online. Thus, it's forecast that Ontario's electricity supply-demand situation will be tight at times in the next few years.

Buildings and their equipment account for a very large portion of Ontario's electricity usage. A study by an environmental think-tank in 2004 identified the commercial and institutional building sector as the one which could contribute the largest electricity reductions of any sector, using conventional techniques such as making improvements to the building shell, heating, ventilation, air conditioning and lighting. The study estimated that the sector could deliver almost half of the 73,000 GWhr of savings identified for the province as a whole (the province currently uses about 139,000 GWhr per year). Further, the study found that net savings could be achieved in this sector through energy conservation retrofits, i.e., energy savings would more than cover the costs of the retrofit over a reasonable payback period.

With regard to Ontario government operations, buildings account for a very large portion of electricity consumption, with lighting, heating and cooling and office equipment being major components. The ministry that coordinates the management operations for many of the buildings used by the Ontario government is the Management Board Secretariat. Within MBS, the Crown corporation, the Ontario Realty Corporation (ORC), undertakes most of the property management functions such as leasing. ORC, in turn, relies heavily on a private facilities management firm called SNC-Lavalin ProFac Inc. ("ProFac") to carry out many of these technical, operational and hands-on duties at ORC-managed buildings, such as energy audits and implementation of conservation measures. Thus, the activities of MBS, ORC and ProFac will be critical to the government's meeting its electricity reduction target.

In this review, the ECO looked at the means by which MBS plans to meet its 10 per cent target, whether the ministry's plans could be considered "aggressive," and whether MBS was planning for more substantial energy-saving building designs or retrofits.

Management Board Secretariat – What It Is and What It Does

Management Board Secretariat is the Ontario ministry that oversees planning and organizational matters across the government, including the coordination of product purchasing, information systems planning, archival services and property development and management. The Ontario government employs about 62,000 people directly and more indirectly. It owns, leases, operates or works out of an estimated 6,000 buildings across Ontario and uses approximately 6,000 vehicles. Most of these human and physical resources are in some way influenced or managed by the policies and planning of the Management Board Secretariat.

Given the size and purchasing influence of the Ontario government, MBS's goals, standards, policies and procedures may influence the broader marketplace for products and services in Ontario, and in more than just buildings – also in fuels and vehicles, computers and paper products. In this light, MBS's energy conservation goals and programs could be of greater significance than their effect on Ontario government operations.

MBS announces electricity conservation program

In April 2004, MBS announced a 10 per cent target: starting from the base year 2002/2003, MBS plans to require a reduction in electricity consumption by a little less than $2\frac{1}{2}$ per cent each year for four years. To meet this target, the ministry said it would focus on four main areas:

Engaging Ontario's 62,000 civil servants in a government-wide conservation effort. MBS polled the civil service and received over 500 energy-related ideas in 2004. These ideas were evaluated and some were acted on.

Aggressively conserving energy in its own buildings through retrofits, upgrades and new building standards. MBS will undertake nearly 80 projects involving the replacement or upgrade of lighting, chillers, heating, ventilation, cooling and automation equipment. The projects are expected to save 24 million kWh per year. This work should contribute a little more than a third of the 62 million kWh per year needed to meet the 10 per cent target.

Working with landlords to cut energy waste in space the government leases. The ORC will be working with 800 private-sector landlords to improve energy efficiency and conservation in facilities the government leases.

Inviting the public to take part in the government's energy conservation campaign. MBS encouraged members of the public to submit suggestions about how the government can improve energy conservation in its operations, using an online suggestion box on the MBS Internet site.

Other MBS commitments and the ministry's record of progress

MBS also has standing commitments in its Statement of Environmental Values (SEV), developed in 1994, concerning the environmental integrity of its building stock and operations. For instance, MBS committed to observing energy conservation and efficiency in its building stock, and applying "Environmentally Conscious Design Guidelines," which emphasize energy efficiency, to improve the environmental performance of government buildings. MBS also noted that some new building projects would be designated green demonstration sites to showcase new environmentally designed products.

> *Given the size and purchasing influence of the Ontario government, MBS's goals, standards, policies and procedures may influence the broader marketplace for products and services in Ontario, and in more than just buildings – also in fuels and vehicles, computers and paper products. In this light, MBS's energy conservation goals and programs could be of greater significance than their effect on Ontario government operations.*

In early 2005, the ECO asked MBS how it was putting some of these statements into operation, particularly those related to energy and electricity conservation. The ECO found that the Environmentally Conscious Design Guidelines referred to in MBS's SEV had not been updated since 1991 and that few new building projects were being designated as green demonstration sites. Ground source and solar heating systems were attempted at some ORC-managed buildings in central Ontario over the past decade, but ORC reported that the benefits were difficult to measure and equipment repairs sometimes posed difficulties. ORC had more success converting some facilities' heating systems from fuel oil to natural gas. ORC also advised that some of its buildings have received awards for environmental features from an industry association.

The ECO also looked at the Business Plans (which spell out a ministry's key objectives on a fiscal-year basis) developed by MBS under the previous government. Over 2001/2002 and 2002/2003, the plans failed to mention building energy efficiency as an objective. The 2004 announcement of the 10 per cent target elevated once again plans for electricity conservation within the ministry.

The ECO agrees with MBS about the need for energy audits, given that ORC manages approximately 6,000 buildings. The advanced age of buildings in the government's portfolio underscores the need to audit ORC's building stock, as much for maintenance as for energy conservation purposes. For example, the average age of buildings in the Queen's Park complex in Toronto is almost 40 years. For this reason, much of the heating, cooling and lighting equipment needs to be replaced because the equipment is near the end of its functional life.

Ways in which MBS could be doing more

Energy self-sufficiency

In 2002, an all-party committee of the legislature called the Select Committee on Alternative Fuel Sources ("Select Committee") made many recommendations to advance the use of alternative and renewable energy in Ontario, some of which were directed at MBS. In reviewing this issue, the ECO found that MBS had made little progress in advancing the recommendations made by the Select Committee in 2002. In its report, the Select Committee recommended that projects for new Ontario government and agency buildings include an alternative fuels and energy audit to assist the application of technologies such as co-generation systems, a method by which space heat and electricity are generated from the same fuel stock. MBS indicated that it is exploring the latter option.

The goal of this last recommendation was far-reaching. It was to make every provincial government and government-funded building energy self-sufficient (i.e., over a specified period of time, a facility generates enough power "on-site" to meet its total energy requirements through solar, on-site wind power, cogeneration, energy conservation and efficiency measures, fuel cells, biomass, or other earth energy cooling or heating applications). According to the committee, such buildings could remain connected to the electricity grid or piped fuel supplies, but a building which produced more electricity than needed, e.g., through an on-site wind turbine, could export that electricity through the grid for a credit-using mechanism known as net metering. MBS reported that the concept of self-sufficiency was difficult to put into operation, and that the ministry's research into building efficiency is generally confined to undertaking energy audits of its own buildings.

LEED program

MBS has never requested that a LEED-certified building be built. LEED is an acronym for Leadership in Energy and Environmental Design – a building certification program that awards points for practices such as the use of natural lighting and natural ventilation to cut electricity use, incorporation of renewable technologies, and re-use of buildings and materials. Based on the number of points received, a building could be designated bronze, silver, gold or platinum. In Canada currently, British Columbia is the leading province in terms of LEED program involvement. In Ontario, there are nearly 20 LEED-certified buildings, many of which were built for colleges, universities, municipal governments, Conservation Authorities and other organizations. MBS reported to ECO that though it did not plan formal participation in the LEED program, the ministry would ensure that all new buildings were built to LEED standards.

Leases and retrofit costs

The schedule of conditions that MBS requires in leases for space with commercial landlords sets standards only for lighting and other forms of energy use in the leased space. The ECO is aware of commercial landlords who would like to advance the energy efficiency of their buildings and recoup long-term costs of retrofits through higher rents, but are forbidden from doing so by certain clauses that are applied by government in its leases for space.

Deep-lake cooling

In downtown Toronto, a system known as deep-lake cooling, operated by a company called Enwave, relies on cold lake water rather than refrigerants for space cooling. It is considered more energy efficient than most conventional air conditioning systems, and avoids the use of ozone-depleting substances. In 2004/2005, no Ontario government buildings were connected to Enwave's deep-lake cooling system. However, most government-owned buildings in Toronto are just outside the current service area of the cooling system at this point. MBS told the ECO that it is in negotiation with Enwave to extend service northward to the Queen's Park complex.

Design Guidelines update

MBS's Environmentally Conscious Design Guidelines do not appear to have been updated since 1991. MBS could update these guidelines and take into account newer concepts such as the use of solar walls, natural ventilation systems (i.e., reducing or eliminating electro-mechanical ventilation), green rooftops, participation in the LEED program, and other innovative "green" practices.

Project reporting

Many building maintenance and equipment replacement projects have attendant energy conservation benefits – for instance, a new fan is generally more efficient than a 30-year old fan. Energy retrofit projects for buildings go beyond maintenance and replacement to look at the whole building as a system for ways to make significant energy savings. It would be useful for MBS to distinguish between energy retrofit projects and maintenance projects when the ministry makes its progress reports.

ECO Comment

Any and all electricity or energy conservation at this time in Ontario is important. For this reason, MBS's targets and efforts must be considered valuable contributions to provincial priorities – for example, toward maintaining the electricity system reliability and reducing air emissions. However, MBS's electricity conservation program has generally focused on replacing outdated equipment – lighting, fans, etc., many of which were in need of replacement due to age – and attempting to change the behaviour of building occupants. MBS has attempted some more innovative approaches at Ontario government buildings, with a mixed record of success.

The MBS conservation program will continue to yield incremental improvements in the short run. To make more substantial improvements, MBS will need to rely on more advanced measures, like those brought forward by the Select Committee on Alternative Fuels and Sources, and brought about by participation in programs such as LEED. Such measures would include incorporating renewable and benign technologies such as natural lighting and ventilation, ground source heating and cooling, solar walls, photovoltaic panels, building scale wind generators and interval metering into building design. The successful application of such measures would make for an aggressive energy conservation program. *(For ministry comments, see page 221.)*

Recommendation 11

The ECO recommends that the Ontario government remove barriers that discourage commercial landlords with Ontario government tenants from undertaking major energy efficiency upgrades and recouping these costs through increases in rents paid by those tenants.

Invasive Alien Garden Plants and Ontario's Biodiversity

Introduction

The landscape of southern Ontario bears little resemblance today to the forests and tall grass prairies of the 1700s and early 1800s. Forests have been cleared to grow crops from other parts of the world, such as potatoes, corn and wheat. Other trees and plants have been introduced for medicinal, aesthetic or culinary reasons, and still others accidentally. In the 1800s and early 1900s, most alien species came from Europe, but with global trade, world travel and the Internet, they now come from anywhere in the world. Alien species such as Queen Anne's Lace, Scots pine and sweet clover are so much a part of our landscape that many Ontarians don't realize they are not native.

When alien species out-compete native species for food and habitat, lack predators and are capable of spreading long distances, they are called "invasive," and they threaten our native ecosystems. Alien garden seeds, bulbs, shrubs, trees and plants continue to be planted by gardeners and have the potential to change Ontario's native landscapes irrevocably.

Furthermore, with the popularity of backyard ponds, native aquatic ecosystems are also under threat. Escapees from ponds, such as European frog-bit in the 1930s and other aquatic species such as yellow flag and flowering rush, have become established in various Ontario waterways.

Why should we be concerned?

In our 2003/2004 annual report, the ECO noted that invasive alien species can significantly affect the ecological, economic and social values of Ontarians. They can reduce biodiversity, alter the food chain, and threaten the survival of native species. They can also threaten our economy. Today, numerous plant species in Ontario are considered to be invasive aliens. Some of these plants have spread from our gardens. Containing or eradicating established populations can cost millions of dollars and require the ongoing use of herbicides to protect crops and native habitats.

Ontario's agricultural industry spends millions of dollars annually to control invasive alien species. Species such as Saint John's-wort and garlic mustard can reduce the amount and quality of cow's milk; common buckthorn is an alternate host for a fungal disease of oats; and others such as the oxeye daisy can reduce crop yield. Expensive control measures such as herbicides are often required. However, some of these species are readily available for sale for the home garden or have become widespread garden weeds.

Invasive alien species may also limit where some agricultural products are produced. Although carrots are a common commercial and home garden vegetable in Ontario, commercial carrot seed cannot be produced here. Cultivated carrot plants readily cross-pollinate with Queen Anne's Lace, a close relative, resulting in plants that produce inferior carrots. Queen Anne's Lace is found in many parts of North America, including Ontario. Since it is virtually impossible to eradicate due to prolific seed production and since the seed can survive in soil for many years, commercial carrot seed production in North America is limited to parts of British Columbia and a few locations in the U.S.

Today's gardeners continue to emulate gardeners of the past by planting alien species from around the world, often without understanding the implications. Groups such as the Urban Forest Associates Inc., the Canadian Botanical Conservation Network, Environment Canada and the Lake Huron Centre for Coastal Conservation have published lists of problem species on the Internet. The Ontario Federation of Anglers and Hunters hosts an invading species Web site, partially funded by MNR, and has a guide for water gardeners with information about invasive alien species that threaten Ontario's wetlands and waterways and a brochure about the problems associated with planting purple loosestrife, with a list of alternative plantings. The City of Toronto has published a list of tree species that should not be planted near a ravine or a natural area. However, many gardeners are unaware this information exists and those that do must still determine whether a species will be invasive in their gardens.

Plant species described as being a "good ground cover" or "fast-growing" can fill a space quickly and easily. However, these species can also spread to neighbouring native ecosystems, such as ravines, parks, wetlands, and farther. An example is the invasive alien species goutweed. Often used as a ground cover, gardeners have difficulty containing it even in the highly disturbed, concrete surroundings of the urban garden. in some landscapes it can run rampant. Since goutweed can spread long distances and dominate the forest floor, some conservation groups have identified it as a problem species. Unfortunately, gardeners are rarely warned that a plant is an invasive alien species and may pose a risk to native ecosystems, and they are rarely provided with instructions about controlling their spread and disposal to prevent propagation from plant parts and seeds.

Current legislation and initiatives

In 2004 three federal action plans were proposed to address the threat from alien invasive species – one for aquatic species, a second for terrestrial plants and plant pests, and a third for terrestrial animals (of which wildlife diseases was initiated as a first phase). These plans were cooperatively developed by Federal-Provincial-Territorial task groups in consultation with stakeholders across Canada. The plan for invasive alien terrestrial plants acknowledges that there is a "clear and immediate need for Canada to address the threat of invasive alien species." All the proposals note that preventing the introduction of potentially harmful species is a priority. Moreover, all three plans also note that federal and provincial legislation addresses some of the concerns related to invasive alien plant species, but the plans also observe that gaps in the legislation and constraints on enforcement have limited its effectiveness.

At the provincial level, the focus has been on designating and controlling plant species that pose a threat to farms. These species, which are not necessarily alien, are called "noxious weeds." Under the provincial *Weed Control Act*, the Ontario Ministry of Agriculture and Food has designated 23 species, including European buckthorn and Queen Anne's Lace, as noxious for the purposes of control. The Act requires that "every person in possession of land shall destroy all noxious weeds on it," but exempts land that is "far enough away from any land used for agricultural or horticultural purposes that they do not interfere with that use." The *Municipal Act* also gives municipalities the authority to pass bylaws identifying local noxious weeds to be controlled and to develop bylaws that deal with issues beyond the scope of the *Weed Control Act*. Some municipalities have chosen to enact weed control bylaws that mirror and even expand on the provincial list while other municipalities have not enacted bylaws.

At the federal level, the focus has been on the unintentional introduction of alien agricultural and forest pests such as the emerald ash borer and the gypsy moth that may be imported in plant materials, and the unintentional introduction of noxious weed seeds. The federal *Plant Protection Act* is the primary tool used to prevent agricultural and forest pests from entering Canada and can also be used to restrict movement of certain plant species within Canada such as buckthorn. The federal *Seeds Act* regulations define quality standards for imported seeds, including the degree of contamination by noxious weeds. However, intentional introductions of potentially invasive alien garden plants and seeds and protection of native ecosystems have not received much attention, according to the proposed action plans.

In 2004, Ontario's Ministry of Natural Resources announced that it would lead the development of an Ontario Biodiversity Strategy that is intended to "conserve Ontario's biodiversity and provide for the sustainable use of the province's biological resources."

The draft strategy workbook identifies invasive alien species as a serious threat to biodiversity and has proposed that Ontario develop a risk assessment plan to address the introduction of new species for horticultural purposes, as well as an awareness program. The draft strategy also proposes that measures to control existing populations of invasive alien species be implemented.

Case study: Garlic Mustard (*Alliaria petiolata*)

First brought to North America by Europeans in the late 1800s as an herb and home remedy, garlic mustard is an alien species that has become invasive in parts of Ontario. It now dominates the forest floor of some southern Ontario deciduous forests and threatens the viability of the endangered wood poppy and the threatened white wood aster.

A garlic mustard plant can produce thousands of seeds that are spread by humans, wildlife, vehicles and water, and can reproduce from root fragments. Seeds can survive for many years before germinating. Since it emerges early in the spring, it can out-compete native species, such as wild ginger, trilliums and hepatica. Garlic mustard is difficult and expensive to eradicate and the long-term use of herbicides may be the only practical option available for containing large populations.

Since garlic mustard has not been designated as noxious, there is no legal requirement for people to remove it from their properties. In addition, garlic mustard seeds may be accidentally imported into Canada as a contaminant in seed products.

ECO Comment

Gardening has become the most popular active pastime in North America and is a significant contributor to the economic and social well-being of Ontario. However, it also has the potential to disrupt Ontario's ecosystems significantly. Despite knowing the potential risks for years, regulators are allowing invasive and potentially invasive alien garden species to be planted throughout Ontario. Lack of knowledge, inadequate legislation and policies, and lack of enforcement have meant that invasive alien species are planted in locations that put native ecosystems at risk. And established populations aren't eradicated before it becomes impossible or too expensive to do so. In Ontario, there is no legislation that requires that introductions of new species be assessed to determine their potential impact on our native ecosystems, nor is there any requirement to ensure that existing legislation be reviewed regularly.

In 2004, the provincial government took a significant first step towards filling this policy and legislative void when MNR announced that it would be leading the initiative to address the threat of invasive alien species within an overall Ontario biodiversity strategy. The provincial government has recognized that it is no longer sufficient to consider only the threats to agriculture and forestry of unintentional introductions of invasive alien species. The threats to native ecosystems must also be considered. It has also been recognized that the threats posed by intentional introductions of potentially invasive alien species by the garden industry and others must also be considered.

The ECO notes that the threat of invasive alien species cannot be effectively addressed without clear criteria for identifying which species are "invasive" and "alien" and which species should be controlled to ensure that scarce dollars are spent wisely. Effective invasive alien species policies and legislation will need to balance ecological, social and economic values and will need to be flexible enough to recognize that a species may be an invasive alien in one region of Ontario but not in another.

Currently, it is very difficult for gardeners to choose plant species wisely and to follow gardening practices that will prevent the spread of invasive alien species to Ontario's native ecosystems. However, appropriate choices will not only enhance our environment and protect native ecosystems, but will also contribute to the economic and social well-being of Ontarians. The ECO believes that a program that informs the public about the risks of planting invasive alien garden species is required, as well as how to identify these plants and how to contain their spread.

Responsibility for the control and management of invasive alien species is complex and involves all levels of government – federal, provincial and municipal – and the governments of all of our trading partners. In addition, there are numerous stakeholders such as industry, Conservation Authorities and the public that perform critical roles in the control and management of invasive alien species. Although some groups, such as native habitat restoration specialists, have been successful at restoring degraded sites, there is much more that Ontario can do to reduce the damage caused by invasive alien garden species and to contain the enormous costs of controlling and eradicating these species. The ECO will continue to monitor provincial initiatives related to invasive alien species. *(For ministry comments, see page 222.)*

Peat: An Unmanaged Natural Resource?

Background

It's estimated that Ontario has 26 million hectares of peatlands, which are wetlands with peat reserves over 40 centimetres deep. Unlike countries such as Ireland and Finland, which use peat as a fuel, exploitation of peatlands in Ontario is very limited, with forestry and cash crops – such as vegetables in Holland Marsh – the common commercial uses. Ontario also has a small but growing horticultural peat industry that sells locally and beyond. Despite having some of the largest peat reserves in the world, regulation of this natural resource and of horticultural peat harvesting activities is out of date and has gaps. This became very apparent when both the province and a municipality attempted to regulate peat harvesting activities that threatened the existence of one of the most significant bogs in Canada, the Alfred Bog near Ottawa.

Harvesting of horticultural peat is a simple process. All trees are removed from the area to be harvested, and deep ditches are cut around the perimeter of the area. A series of shallow ditches, each about 30 centimetres deep, are then cut so that water will drain from the area to be harvested into the surrounding deeper ditches that then direct the drainage water to a waterbody. The partially dried peat is then vacuumed or scooped out by heavy equipment, dried some more, packaged and sold as a soil amendment. The process is repeated until the reserve is depleted, which can take many years.

What is peat?

The term "peat" refers to a type of organic matter that is created when plants such as sphagnum mosses decompose in a wetland. Sphagnum mosses form thick mats that gradually increase in depth as each generation grows on top of the previous generation. Deprived of oxygen, the older plants begin to decompose and, weighted down by the plants above, compress into layers that grow at a rate of about one millimetre per year. Peat is created at the rate of one metre per 1,000 years and is the first stage in the formation of coal.

Peat is commonly found in bogs that receive all of their water and nutrients from precipitation. Although most bogs have disappeared in southern Ontario, a few remain, including the Wainfleet Bog (Niagara Peninsula), Mer Bleue (Ottawa), Alfred Bog (United Counties of Prescott and Russell), and the Sifton Bog (London).

The fight to save the Alfred Bog

The Alfred Bog, located 75 kilometres east of Ottawa in the municipality of the United Counties of Prescott and Russell, is the largest high-quality bog in southern Ontario. It is home to many rare species, such as the bog elfin butterfly, which is found only in three other locations in the world, and the pink-flowering shrub, rhodora, which is found nowhere else in Ontario. In contrast, its moose population – the most southerly moose population in Ontario – is large enough to support hunting. In 1984 the Alfred Bog was declared an Area of Natural Scientific Interest (ANSI) and a Provincially Significant Wetland, and is expected to be declared a wetland of international importance under the Ramsar Convention.

In the early 1800s, the Alfred Bog measured about 10,500 hectares (26,000 acres). By 1945, it had been reduced to 5,000 hectares (12,355 acres), mostly due to agricultural drainage, and most of the bog was privately owned and unused. In 1982 the South Nation Planning Board agreed to change the designation of some of the privately owned land from "conservation" to "agriculture" to allow peat harvesting. This decision caught the attention of local conservation groups and so began a 20-year-plus battle to protect the bog at a cost of millions of dollars.

In 1988, the Nature Conservancy of Canada purchased 1,500 hectares of the Alfred Bog for $725,000. In the late 1990s, peat harvesters expanded their operations in some of the remaining, unprotected areas of the bog. Fearing the loss of these areas of the bog, the municipality passed a bylaw in 1999 to curb peat harvesting in the bog, and in 2000, approved a new official plan that included changes to the zoning designation of the private lands within the bog from "rural-agricultural" to "wetlands," thereby making the entire area of the Alfred Bog part of the municipality's "Natural Heritage Policy Area." Lands subject to the Natural Heritage Policy contain natural features that "shall be protected from negative impacts of development." Further, the municipality specifically defines "development" as including "activities such as ....peat extraction or similar activities that would change the landform and natural vegetative characteristics of a site." The peat harvesters appealed the official plan to the Ontario Municipal Board (OMB). In May 2002, the Ministry of the Environment issued Provincial Officer's orders that permits to take water and certificates of approval for sewage works were required for harvesting peat in and around the bog. The peat harvesters appealed the orders to the Environmental Review Tribunal (ERT).

In 2004 both appeals were decided. The OMB agreed to change the boundary of the bog to remove lands that had been harvested and to ban harvesting within the bog. The Nature Conservancy, with contributions from the federal and provincial governments, agreed to purchase another 1,300 hectares of the bog for about $2.5 million. Peat harvesters also agreed to transfer ownership of their lands to the municipality when they ceased operations in 10 to 15 years. Over 80 per cent of the bog will then be in public ownership. Moreover, the municipality passed a site alteration bylaw regulating existing peat harvesting operations adjacent to the bog, requiring operators to implement measures to reduce their impact on the bog and mandating that development/site alteration within 120m of the wetland may be permitted only if it can be demonstrated that there is no impact on the wetland. (The ERT revoked the MOE Orders.)

Management of peat resources in Ontario

The ERT and OMB heard widely divergent views about how peat harvesting should be managed in the Alfred Bog. Some of these views and others are summarized below.

Is peat harvesting agriculture or mining?

Peat extraction is specifically exempt from regulation under Ontario's *Mining Act* and *Aggregate Resources Act*. In contrast, the provincial governments of Quebec, Manitoba and New Brunswick regulate peat harvesting under mining or aggregate legislation.

Testimony at the ERT hearing in 2002 suggested that peat harvesting is "an industrial activity, much like mining and aggregate harvesting, where natural resources are recovered for sale" and that "peat is not grown and cultivated by the operator." However, the ERT also heard that peat harvesting is agriculture since the operators intend to farm these lands after the peat is removed. While the ERT did not definitely pronounce on the issue as to whether peat harvesting should be classified as an agricultural or mining activity, the tribunal did note that "mining and aggregate extraction is an end unto itself, whereas, peat harvesting results in the land being converted to agricultural use." Moreover, the OMB downgraded an area of the Alfred Bog zoned as wetland to an agricultural classification because it had been degraded by peat harvesting.

Does peat harvesting negatively affect adjacent wetlands?

Aerial photographs of the Alfred Bog clearly show that vegetation along deep drains such as those cut by the municipality in the 1800s and early 1900s and later by peat harvesters differs from undrained sections. Often more than a metre deep, these drains have lowered the water table in the bog sufficiently to allow stands of trees such as black spruce, tamarack and gray birch to grow. Vegetation changes are reversible over time if the drains are properly blocked, causing the water table to rise to original levels, but if the drains are not properly blocked, they will continue to drain water from adjacent wetlands, and vegetation changes will continue.

An analysis by the peat industry concluded that drainage water from peat harvesting operations can adversely affect the water quality of the receiving body. Suspended solids are of particular concern.

Can harvested sites be restored or rehabilitated?

Fully harvested sites are often rehabilitated for agriculture, recreation or forestry. However, efforts to restore these sites to their original state have generally not been successful. Current research indicates that if the water table can be re-established and the area is seeded, sphagnum moss populations can be re-established, but that it would take thousands of years to restore harvested sites to their original depth.

What planning processes apply to peatlands (wetlands) and peat harvesting activities?

Historically, bogs in Ontario, like other wetlands, were considered to be worthless and were drained for agriculture or development. The new Provincial Policy Statement (2005 PPS), which came into force in March of 2005, prohibits development and site alteration in or adjacent to Provincially Significant Wetlands in southern Ontario and eastern Ontario. In Central Ontario and designated parts of the north, the 2005 PPS prohibits development and site alteration in or adjacent to significant wetlands unless "it has been demonstrated that there will be no negative impacts on the natural features or on the ecological functions for which the area is identified." (For further information on the 2005 PPS, refer to pages 39-47.) However, the 2005 PPS does not specifically identify peat harvesting as a type of site alteration and there is ambiguity as to the scope of protection municipalities are required to provide to peatlands because many bogs and areas containing peat resources are not designated as PSWs in Official Plans.

It was partly to address this gap that the Ministry of Municipal Affairs and Housing amended the *Municipal Act* in 2001 to allow municipalities to regulate peat harvesting (and the removal of other types of top soil) by using site alteration bylaws. This amendment allows municipalities to impose conditions on peat harvesting operations and even to prohibit peat harvesting.

An additional planning-related change was made in 2004 when O. Reg. 97/04 under the *Conservation Authorities Act* was passed to prohibit any development on wetlands unless approved by a Conservation Authority.

What other legislation may apply to peat resources?

If peat is to be harvested on Crown land, land use and work permits from the Ministry of Natural Resources and progressive rehabilitation of harvested sites are required under the *Public Lands Act* and a related policy document. Although some peat initiatives may also be subject to the *Environmental Assessment Act*, the ECO is unaware of any initiatives that have undergone an assessment.

Since the Alfred Bog was mostly privately owned, MOE attempted to regulate peat harvesters under the *Ontario Water Resources Act (OWRA)*. Under the *OWRA*, a permit to take water may be required if more than 50,000 litres per day of water is taken. Although some agricultural activities are exempted from this *OWRA* requirement, irrigation of crops grown for sale is not. Some witnesses at the ERT contended that peat harvesters should be exempted since it is a water-taking for the purposes of agriculture. Under the *OWRA*, a certificate of approval for sewage works may also be required if works are built to collect or transmit drainage. Although agricultural drainage is exempt, mining drainage is not exempt under the *OWRA*. Some witnesses at the ERT argued that groundwater seeping into the drains is not sewage as defined under the *OWRA*. MOE noted that peat harvesters in northern Ontario are regulated under the *OWRA*, and the ERT observed that agricultural drains installed by the municipality and neighbouring cash croppers are exempted under the *OWRA*.

ECO Comment

Important questions about the adequacy of Ontario's legislative and policy framework to protect provincially significant peatlands and peat resources were raised in the Alfred Bog case and, in the ECO's view, remain unresolved. With the exception of the *Municipal Act*, legislation and policies specifically related to peat operations and peat resources have not been updated in over 20 years – or don't exist. In addition, the *OWRA* has not been consistently applied to peat operations across the province.

However, before these issues can be addressed, the question as to whether peat harvesting is agriculture or mining must be decided. Determining land use based on its *next* use, in this instance, agriculture, is not standard practice. For example, aggregate operations are fully regulated under the *Aggregate Resources Act*, although it is common for the end use in the site plans to be agriculture. In addition, when water is removed for the purpose of permanently lowering the water table to extract resources such as minerals and aggregates, it is considered to be water-taking and is regulated under the *OWRA*. Water-taking can affect neighbouring properties. Agricultural drainage, on the other hand, accelerates the movement of pore water out of normally unsaturated soils but does not affect neighbouring properties. Finally, agriculture involves the cultivation and harvesting of renewable resources. Not only is peat not cultivated, the ECO does not believe that peat is a renewable resource comparable to crops or trees, which can be regrown within months or years.

The ECO also notes that there are gaps in the existing legislative and policy framework. Although changes to the *Planning Act* and the 2005 PPS are designed to improve protection of Provincially Significant Wetlands if they are appropriately designated in official plans, these protections do not necessarily extend to peatlands, because not all peatlands are Provincially Significant Wetlands as defined in the 2005 PPS and peat harvesting is not included as a type of site alteration in the 2005 PPS. In addition, under the *Municipal Act*, while they have the power to do so, municipalities are not required to regulate peat harvesting operations, nor are they required to define measures to minimize damage to the natural heritage or to require site rehabilitation plans. Substantial work has been done in the forestry and mining sectors to define and implement measures that mitigate adverse effects on the environment and to rehabilitate sites, but the province has not defined its expectations in this regard for peat harvesting operations.

The battle to protect the Alfred Bog had an excellent outcome. Over 80 per cent of the bog will be protected for generations to come, and changes are being made to local peat harvesting practices that will improve protection of the bog. To ensure that this expensive battle isn't repeated elsewhere, the ECO believes that the legislative and policy framework needs to be clarified and the gaps addressed to ensure that peat harvesting is conducted in an environmentally sound manner. It is important that peatlands and peat resources are adequately and consistently managed and, where necessary, their ecological and natural heritage values protected throughout Ontario. *(For ministry comments, see page 222.)*

Recommendation 12

The ECO recommends that MNR, in consultation with MOE and MAH, develop a law to ensure that peat harvesting is carried out with minimal ecosystem disturbance, and that appropriate rehabilitation is undertaken.

Sustaining the Urban Forest

Introduction

Forest cover in urban and developed areas is vital for a number of reasons. The canopy of trees can intercept falling rain, slowing the rate of storm run-off and thus reducing soil erosion and water quality problems. Trees in urban areas provide natural cooling in summer when the urban heat island effect and the demand for space cooling is greatest. Trees also draw pollutants and carbon dioxide, a greenhouse gas, from the atmosphere, thereby buffering climate change and improving local air quality. Strips or bands of extensive tree cover running through urban areas can provide both habitat and migration corridors for wildlife.

Conversely, the loss of forest cover can lead to faster storm drainage, less moisture retention, less shade for natural cooling, less habitat for wildlife and poorer air quality. Furthermore, the forests in the urban areas of southern Ontario may have – or support – tree species that are not commonly found anywhere else in Canada, which is a significant consideration for the conservation of Ontario's biodiversity.

Researchers and urban forest advocates have put forward various concepts that help underscore the importance of the urban forest. Research shows that the continuity between the tree canopy of urban centers and outlying forested areas helps to ensure wildlife needs are met and certain ecosystem functions maintained. Some researchers have noted that human settlements should be regarded as that part of the forest where people live. After all, most of Ontario's land mass was forest-covered at one time, which adds validity to this view. Another more utilitarian, but nevertheless valid, outlook is that urban trees are a vital layer of infrastructure, not unlike roads or sewers, which require planning to develop and maintenance for continued proper "operation." In fact, some researchers have correlated tree cover in drainage basins with improved local surface water quality, noting that drinking water treatment costs decline as tree cover increases. Because of the pollution-abatement attributes of trees, the urban forest has been likened to "green infrastructure." The following definition of urban forestry from an expert in the field captures many of these concepts:

> Urban forestry is the sustained planning, planting, protection, maintenance, and care of trees, forests, greenspace and related resources in and around cities and communities for economic, environmental, social, and public health benefits for people.

Despite the importance of urban forest cover, there is little direct regulation by the provincial government in this area. The make-up and maintenance of virtually all urban forests are handled either by the local municipality, Conservation Authorities, or thousands of individual landowners. The Ministry of Municipal Affairs and Housing has some authority over forests and natural heritage under the *Municipal Act*, the *Planning Act* and the Provincial Policy Statement. The Ministry of Natural Resources has a great deal of regulatory involvement in forestry matters on Crown land in Ontario, but has only a very small staff with forest expertise that could be applied to urban areas. It has also been suggested that the Ministry of Culture could play a greater role, under the *Ontario Heritage Act*, by ensuring key representative trees are given greater protection.

The federal government's Canadian Food Inspection Agency (CFIA) has taken the lead in controlling certain threats to forest health in urban and settled areas. CFIA has been designated the authority through the *Plant Protection Act* and Ash-Free Zone Regulations to set quarantine zones, to oversee cutting trees that have become infested with the emerald ash borer, and to undertake other measures. CFIA acted similarly in the case of the Asian long-horned beetle infestation in Toronto. Natural Resources Canada, a federal ministry, helps to finance tree planting across Canada through support to a not-for-profit group called the Tree Canada Foundation.

However, the regulation of municipalities and urban affairs is very much a provincial, not federal, function in Canada, and therefore the question of what, if any, role the province should play in promoting and protecting urban forests is a valid one. The key provincial law governing municipalities in Ontario is the *Municipal Act*, which includes provisions that permit municipalities to pass tree bylaws, e.g., to prohibit or regulate the destruction or injuring of trees.

Some recent trends affecting urban forests and trees on private lands

Invasive species

In Essex and Chatham-Kent Counties, about 80,000 ash trees have been destroyed to limit the spread of the emerald ash borer, with the projected final number being over 100,000. Also, the ECO reported last year that by spring 2004, over 15,000 trees near the Asian long-horned beetle infestation area in north Toronto were felled. MNR intends to ensure that trees are returned to the landscape, using $1 million committed through its Forestry Futures Trust. The ministry has been in discussion with CFIA, Conservation Authorities, the City of Toronto, Essex County and others to ensure a tree-planting program goes ahead. MNR also works cooperatively with the federal Canadian Forestry Service on forest health in Ontario.

Declining canopy

In the central section of Toronto, the extent of the urban forest has shrunk from 22 per cent in 1992 to 16 per cent in 2004, in spite of having a tree advocacy office and program led by a municipal councillor. In late 2004, Toronto extended a bylaw throughout the entire city, requiring residents to purchase a $100 permit for removing most trees greater than 30 centimetres in diameter from property they own.

Bylaws under the Municipal Act

Municipalities updating tree bylaws could begin integrating biodiversity considerations, woodlands conservation and landscape-level issues into tree conservation policy. The Regional Municipality of Halton is moving in this direction through its 2004 draft tree bylaw, which prohibits, for example, destroying or injuring trees in Carolinian Canada sites (see Biodiversity and Genetic Importance, next page) and in areas of natural and scientific interest.

Protecting heritage trees

The Ontario Urban Forest Council called for expanded protection for trees of significance by clarifying their definitions in the *Ontario Heritage Act* so that heritage trees could more readily be designated for protection. The Ministry of Culture announced in 2004 that it was introducing amendments to the Act through Bill 60, although the ministry says it's up to municipalities to identify and preserve properties, including those with trees.

Greenbelt Act, 2005, *and* Places to Grow *legislation*

MAH's *Greenbelt Act, 2005* (see pages 47-54), does not set specific targets for forest cover, nor specific goals such as planting native instead of alien tree species. Under its *Places to Grow* legislation, the Ministry of Public Infrastructure Renewal is considering where urban and economic growth should be permitted in Ontario and how – for instance, by promoting intensification and compact development (see pages 46, 53). Such decisions will have a significant impact on the space available for urban trees in the highly populated areas of southern Ontario.

MNR leaves the nursery business

The 2002/2003 ECO annual report expressed concern that the supply of nursery trees of native tree species had become less reliable in Ontario because of MNR's exit from nursery operations. Cities such as Windsor and Hamilton have considered establishing their own nurseries in order to diversify the range of native tree species in their areas or simply to ensure the availability of native stock.

Biodiversity and Genetic Importance of the Carolinian Forest

The area of Ontario from Toronto to Windsor – known as the Carolinian ecoregion – is one of the most biologically diverse areas in Canada. There are at least 70 tree species native to this area, approximately half of all known tree species in Canada. Many of these trees are not found elsewhere in Canada, and some occupy only a small segment of this region as their native range. Much of the ground surface in this region has been converted to either urban or agricultural land use and is thus unavailable as forest habitat. Land in the Carolinian ecoregion is also extensively privately owned, which partly limits the ability of the province or a municipality to influence the choice of tree types for planting. Cities could decide, however, to provide space for native species in municipally owned park space.

Ensuring that seeds of trees are gathered and germinated to produce saplings for introduction into their local environment is a key consideration for conserving biodiversity, since trees grown from locally obtained seeds should be better adapted to local climate and soil conditions. MNR operates the Ontario Tree Seed Plant in Angus, Ontario. It supplies Ontario-origin seed in large quantities to nurseries and reforestation programs and helps to ensure that seeds for some native species are available. Nevertheless, many seed collection and tree-planting programs are also undertaken in various locales on a municipally operated or volunteer basis.

In summary, developed urban areas occupy as much as one-fifth of the land area of the Carolinian ecoregion. Consequently, the parks, green spaces and even private treed lands of urban southern Ontario, though small in size, could make an important contribution to preserving the native species of Carolinian Canada.

Threatened, Endangered Tree Species of the Carolinian Ecoregion of Ontario: Cucumber Tree, Kentucky Coffee-tree, Red Mulberry, American Chestnut, Shumard Oak, Dwarf Hackberry, Hop Tree, Blue Ash

Native Trees Tolerant of Urban Environments: Black Maple, Hackberry, Kentucky Coffee-tree

Special Needs of Trees in Urban Centres

Maintaining the forest cover in urban centres is becoming an increasing challenge, especially for trees situated near roads, in parking lots and on boulevards. Paved surfaces, road salting and soil compaction from traffic adversely affect roots and drainage. For decades, municipalities have been relying on hardy and often non-native tree species like gingko and the black locust because they can withstand such harsh conditions. Now, some urban foresters are building soil structures beneath sidewalks to foster the root expansion that is critical for tree growth. This costs more, but it also promotes a better survival rate and may allow a greater range of tree species to be planted. Even with better soil structures, though, watering and additional maintenance may be required to keep newly planted trees alive.

U.S. cities like Chicago have created very detailed rules about the sizes of tree to be planted in new developments; the required soil volumes, guard rails and protections; the amount of tree cover relative to paved surface; and the spacing of trees for property frontages. Larger urban centres like Toronto, Mississauga, Hamilton, London or Windsor could consider imposing these rules. Working out such rules would be a worthwhile initiative in light of the province's plan for urban intensification under its *Places to Grow* initiative.

The perceived burden and cost of maintenance may make private landowners reluctant to plant or replace trees on properties. Native tree selection may help ease this reluctance – species like pin oak are drought tolerant, thus reducing watering needs, and smaller native trees such as serviceberry or redbud may reduce leaf clean-up or concern about sprawling limbs or roots. If the province and municipalities procured large amounts of native tree stock, native species could become more common and more affordable at private nurseries as a consequence. Also, recognition of the value of urban trees through the property tax assessment system could provide private property owners with the incentive needed to maintain trees on their property.

Finally, as mentioned, some urban forests are aging and dying, often without a replacement plan or budget at the local level. For all of these reasons, greater resources and attention will need to be paid to the trees of urban Ontario in order even to maintain the forest cover that exists at present in certain areas of the province.

Conclusion

The forests of urban southern Ontario deserve more attention for a number of reasons. The environment of many urban areas can be harsh for tree growth, and in many cities the tree population is aging. Much will be needed to overcome these adversities, including research, funding, communication, and enhanced regulatory protection. On the positive side, urban park space and privately owned trees could make a continuing contribution to Ontario's biodiversity and allow for partial restoration of native ecosystem conditions.

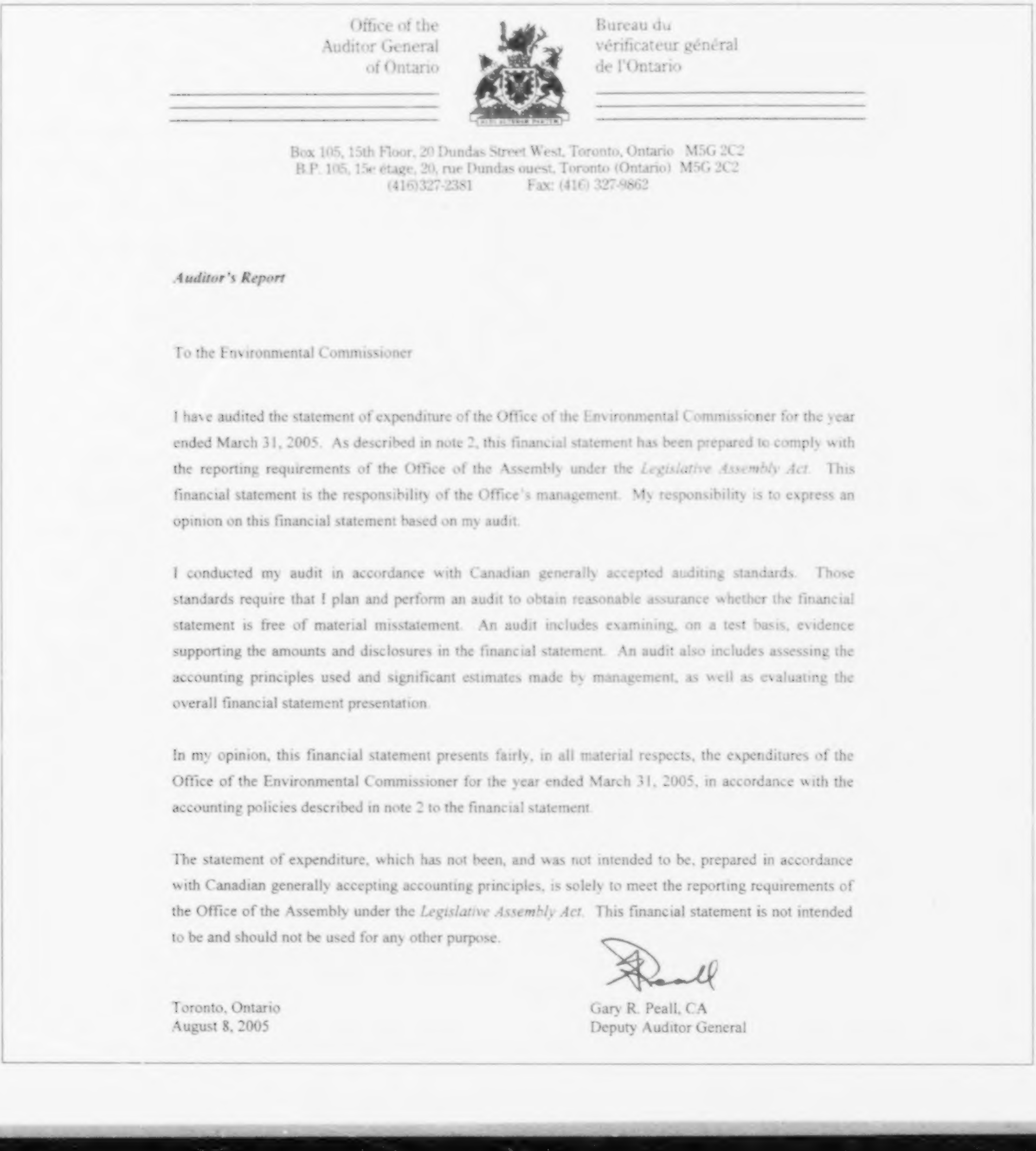
MNR's primary involvement with urban forests, and indeed, with most of the forests of southern Ontario, is in coordinating and providing information and advice to municipalities, Conservation Authorities and nature groups about forest health and ecosystem issues through programs like the Natural Heritage Information Centre and through strategies like the Southcentral Region Forest Strategy. The Ontario Tree Seed Plant is MNR's most "hands-on" activity in relation to the forests in this part of Ontario. MAH's principal role in urban forest matters is the delegation of tree bylaw-making powers to municipalities under the *Municipal Act*. While these roles are helpful, the provincial government should consider a more active role in supporting urban forests, especially since the province has already become involved through its financial support for tree replacement because of losses from invasive species outbreaks. *(For ministry comments, see page 222.)*

Recommendation 13

The ECO recommends that MNR and MAH develop a coordinated urban forest strategy to protect urban and heritage trees, working together with municipalities, ENGOs and local agencies.

PART 9

Financial Statement



Office of the
Auditor General
of Ontario

Bureau du
vérificateur général
de l'Ontario

Box 105, 15th Floor, 20 Dundas Street West, Toronto, Ontario M5G 2C2
B.P. 105, 15e étage, 20, rue Dundas ouest, Toronto (Ontario) M5G 2C2
(416)327-2381 Fax: (416) 327-9862

Auditor's Report

To the Environmental Commissioner

I have audited the statement of expenditure of the Office of the Environmental Commissioner for the year ended March 31, 2005. As described in note 2, this financial statement has been prepared to comply with the reporting requirements of the Office of the Assembly under the *Legislative Assembly Act*. This financial statement is the responsibility of the Office's management. My responsibility is to express an opinion on this financial statement based on my audit.

I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I plan and perform an audit to obtain reasonable assurance whether the financial statement is free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statement. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In my opinion, this financial statement presents fairly, in all material respects, the expenditures of the Office of the Environmental Commissioner for the year ended March 31, 2005, in accordance with the accounting policies described in note 2 to the financial statement.

The statement of expenditure, which has not been, and was not intended to be, prepared in accordance with Canadian generally accepting accounting principles, is solely to meet the reporting requirements of the Office of the Assembly under the *Legislative Assembly Act*. This financial statement is not intended to be and should not be used for any other purpose.

Toronto, Ontario
August 8, 2005

Gary R. Peall, CA
Deputy Auditor General

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

Statement of Expenditure
For the Year Ended March 31, 2005

	2005 $	2004 $
Salaries and wages	1,161,663	1,107,397
Employee benefits (Note 4)	197,926	187,479
Transportation and communication	83,313	90,268
Services	530,492	553,106
Supplies	56,110	88,864
	2,029,504	2,027,114

See accompanying notes to financial statement.

Approved:

Environmental Commissioner

Public Sector Salary Disclosure Act

Office of the Environmental Commissioner

Employees paid $100,000 or more in 2004

Surname	Given	Position	Salary Paid	Taxable Benefits
McROBERT	DAVID	Sr Policy Analyst/Counsel	118,302.75	207.15
MILLER	GORDON	Commissioner	125,023.60	219.48

Prepared under the Public Sector Salary Disclosure Act

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

Notes to Financial Statement
March 31, 2005

1. BACKGROUND

The Office of the Environmental Commissioner commenced operation May 30, 1994. The Environmental Commissioner is an independent officer of the Legislative Assembly of Ontario, and promotes the values, goals and purposes of the *Environmental Bill of Rights, 1993 (EBR)* to improve the quality of Ontario's natural environment. The Environmental Commissioner also monitors and reports on the application of the *EBR*, participation in the *EBR*, and reviews government accountability for environmental decision making.

2. SIGNIFICANT ACCOUNTING POLICIES

Basis of accounting

The Office follows the basis of accounting adopted for the Office of the Assembly as required by the *Legislative Assembly Act* and accordingly uses a modified cash basis of accounting which allows an additional 30 days to pay for expenditures incurred during the year just ended. This differs from Canadian generally accepted accounting principles in that for example liabilities incurred but unpaid within 30 days of the year end are not recorded until paid, and expenditures for assets such as computers and office furnishings are expensed in the year of acquisition rather than recorded as fixed assets and amortized over their useful lives.

3. EXPENDITURES

Expenditures are paid out of monies appropriated by the Legislative Assembly of Ontario.

Certain administrative services are provided by the Office of the Assembly without charge.

4. PENSION PLAN

The Office of the Environmental Commissioner provides pension benefits for its permanent employees (and to non-permanent employees who elect to participate) through participation in the Ontario Public Service Pension Plan (PSPF) which is a multiemployer plan established by the Province of Ontario. This plan is accounted for as a defined contribution plan as the Office has insufficient information to apply defined benefit plan accounting to this pension plan. The Office's contribution to the Plan during the year was $77,500 (2004 – $72,338) which is included in employee benefits.

The cost of post-retirement non-pension benefits were paid by Management Board Secretariat and are not included in the statement of expenditure.

5. LEASE

The Office has a lease agreement with its landlord for its current premises expiring on February 28, 2013. The minimum lease payments for the remaining term of the lease are as follows:

	($)
2005/06	167,784
2006/07	184,009
2007/08	186,959
2008/09	219,409
2009/10	219,409
2010/11	219,409
2011/12	219,409
2012/13	201,125
	1,617,513

2004/2005 ECO Recommendations

Recommendation 1

The ECO recommends that new government laws and initiatives that are environmentally significant be prescribed under the *EBR* within one year of implementation.

Keeping the EBR in Sync with New Laws and Government Initiatives, p. 12

Recommendation 2

The ECO recommends that all ministries and prescribed agencies actively consult with the Ontario public, using the Environmental Registry, when setting environmentally significant goals and targets for the province's energy sector

Unposted Decisions, p. 28

Recommendation 3

The ECO recommends that MAH undertake public consultation on the government's population growth modeling and projections in order to provide a transparent context for land use planning decisions.

Limits to Growth? p. 47

Recommendation 4

The ECO recommends that the government expressly identify a lead ministry so that a provincial strategy can be prepared to help meet Canada's climate change obligations, and that the ministry be provided with adequate resources.

Update: Climate Change, p. 62

Recommendation 5

The ECO recommends that MNR and MOE immediately post a proposal notice on the Environmental Registry and consult with the public on changes to the Fish Habitat Compliance Protocol drafted in 2004.

Update: Enforcement of the Fisheries Act, p. 73

Recommendation 6

The ECO recommends that MNR require forestry companies to utilize prescribed burns where appropriate, while outlining a direct and supporting role for the ministry in the process.

Ontario's Forest Fire Management Strategy, p. 79

Recommendation 7

The ECO recommends that MNR develop transparent and accountable processes related to approvals for aquaculture operations.

Aquaculture Policies and Procedures, p. 86

Recommendation 8

The ECO recommends that ENG establish more substantial targets for the generation of electricity from renewable energy sources, consulting the public on the longer term.

ENG Restructures the Electricity Sector – Bill 100, p. 106

Recommendation 9

The ECO recommends that MTO establish training programs for highway construction staff on how to prevent and minimize environmental damage during road construction, and also establish training standards for environmental inspectors.

The Class EA for Provincial Transportation Facilities, p. 116

Recommendation 10

The ECO recommends that OMAF, MNR, and MOE review current public policies related to drainage and stormwater management to ensure that ecosystem functions are safeguarded.

Bad Drainage Planning: The McNabb Drain, p. 155

Recommendation 11

The ECO recommends that the Ontario government remove barriers that discourage commercial landlords with Ontario government tenants from undertaking major energy efficiency upgrades and recouping these costs through increases in rents paid by those tenants.

Building Conservation in Ontario, p. 190

Recommendation 12

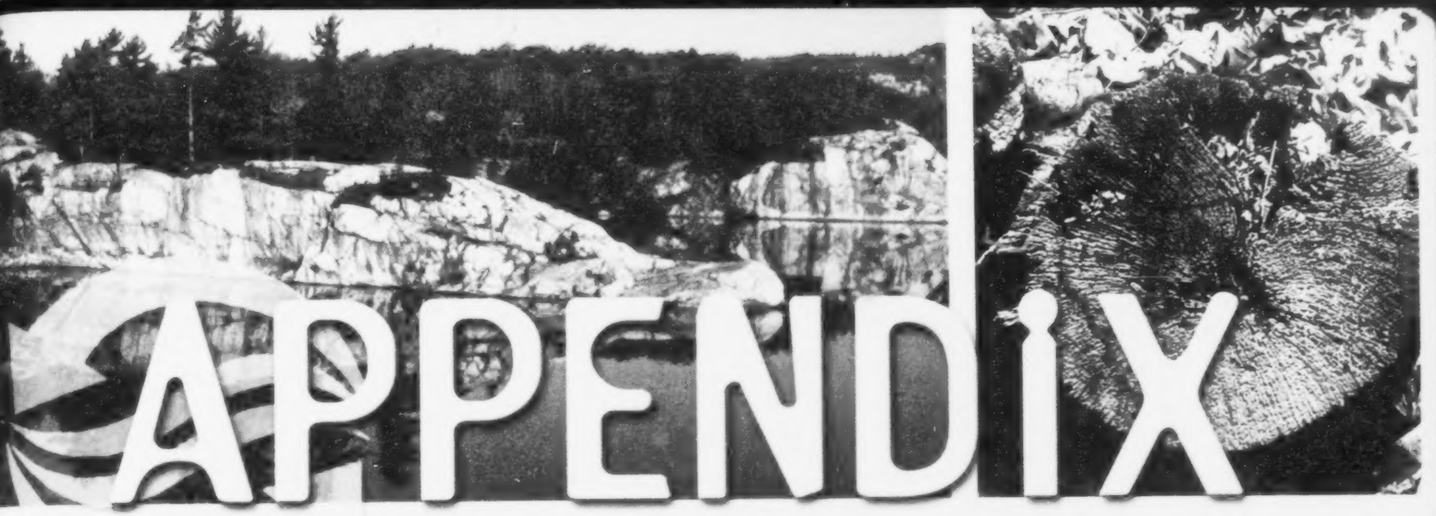
The ECO recommends that MNR, in consultation with MOE and MAH, develop a law to ensure that peat harvesting is carried out with minimal ecosystem disturbance, and that appropriate rehabilitation is undertaken.

Peat: An Unmanaged Natural Resource? p. 200

Recommendation 13

The ECO recommends that MNR and MAH develop a coordinated urban forest strategy to protect urban and heritage trees, working together with municipalities, ENGOs and local agencies.

Sustaining the Urban Forest, p. 205



APPENDIX

Ministry Comments

Keeping the *EBR* in Sync

MNR: Individuals wishing to have issues investigated that fall under the *Fisheries Act* can petition the Federal Commissioner of the Environment and Sustainable Development at:

Auditor General of Canada,
Commissioner of the Environment and Sustainable Development
240 Sparks Street
Ottawa, Ontario K1A 0G6
(613) 995-3708
petitions@oag-bvg.gc.ca

MNR advised the ECO by letter dated May 25, 2005 that MNR agrees that the *Kawartha Highlands Signature Site Park Act* should be prescribed under the *Environmental Bill of Rights*. MNR will work with MOE to do so once the *Kawartha Highlands Signature Site Park Act* is proclaimed in full and the parks boundaries are regulated.

Statements of Environmental Values (SEVs)

MOE: By late June 2005, the 14 revised SEVs were either in the final stages of approval or were ready to be posted on the Environmental Registry. However, due to the June 29, 2005 Cabinet shuffle, several ministries had changes made to their core businesses. In addition, the number of prescribed ministries was reduced to 13. The result was that several of the SEVs required revision and thus concurrent posting of all the SEVs could not occur. Draft SEVs were posted in July 2005 for those ministries that were not affected by the shuffle or who had an opportunity to confirm the content of their draft SEVs. The remaining ministries will be reviewing and revising their draft SEVs and posting them as soon as possible. There is a commitment from ministries to, in the future, periodically examine their respective SEV to ensure the SEV is current.

MNR: MNR is cooperating with the MOE-led effort to coordinate posting of revised draft Statements of Environmental Values for public comment. On July 15, 2005, MNR provided MOE with its revised draft SEV for posting on the *EBR*. MNR recognizes there is an ongoing need to review its SEV to ensure appropriate consideration of environmentally significant decisions.

MTO: MTO has updated its SEV and it will be ready for posting shortly.

Instruments

MOE: In 2002, MOE drafted Protocols to document existing practices for updating Cs of A and held two stakeholder meetings. The Protocols have been revised to incorporate comments received through the consultation process. Any environmentally significant change made to an existing C of A will be posted when required on the Environmental Registry for public comment, in accordance with the *EBR*.

In its review of the Cedarwell PTTW, the Ministry determined that contamination of the water supply was unlikely. In addition, specific duties were imposed on the permit holder to mitigate and restore any adverse effect that did occur. The applicant's hydrogeological study was reviewed by ministry scientific staff and the recommendation to issue the permit was based on that review and their local knowledge of hydrogeological conditions. The comment period was not extended by MOE for the Edwards Landfill proposal notice because considerable consultation had already occurred. The ECO questions why the Edwards application was not subject to section 30 of the *Environmental Protection Act* and how section 30 applies to waste streams other than domestic waste. Ministry practice is to apply Section 30 of the *EPA* only to domestic waste generated from 1,500 persons or more. The Environmental Assessment (EA) Panel appointed by the former Minister looked at section 30 of the *EPA* relative to the *EAA* in its March 2005 report to MOE. The ministry is reviewing the Panel's recommendations and public comments before deciding how to proceed with improving the EA process.

Quality of Information

Access to Supporting Information – MNR: Due to the transitory nature of weblink addresses, MNR prefers to provide the website address which is less likely to change over time. Within the *EBR* notice, text is included that directs readers to the specific contents of a linked website.

Unposted Decisions

Excluding the Eastern Wolf from Species at Risk Protection – MNR: The proposed policy revision did not change the status quo with respect to protection of wolves in provincial parks and did not open parks to hunting of wolves. Thus it was not considered environmentally significant. Protection of wolves will be addressed in a broader provincial context through development of a provincial wolf management strategy.

Late Decision Notices

MNR: MNR continues to actively work toward reducing the number of outstanding decision notices and providing updates on the Registry. Many proposals are associated with active projects involving planning processes requiring a year or more to complete and decision notices are not appropriate yet.

Significant Issues

Strong Communities Act

MNR: MNR recognizes that MAH is the lead for the *Strong Communities Act*. MNR stresses that the Greenbelt Plan is very strong on protecting certain natural heritage features and areas from new mineral aggregate operations. New operations are not permitted in significant wetlands, significant woodlands and significant habitat of endangered and threatened species. MNR notes that the Oak Ridges Moraine Conservation Plan also includes a Natural Linkage Areas designation, which permits mineral aggregate operations subject to special criteria.

2005 Provincial Policy Statement

MNR: MNR recognizes that MAH is the lead for the PPS. The overarching natural heritage policy is that natural heritage features and areas are to be protected for the long term. Specific features to be protected from development and site alteration, or from the impacts of such, are listed. Under Implementation and Interpretation, the PPS directs that official plans shall identify provincial interests and set out appropriate land use designations and policies. Policy 2.1.2 provides for the maintenance, restoration or, where possible, improvement of diversity and connectivity of natural features and the long-term ecological function and biodiversity of natural heritage systems.

The definition for development includes "a change in land use requiring approval under the *Planning Act*." A mineral aggregate operation would be considered development under this definition when a rezoning or official plan amendment is involved. "Site alteration" includes activities such as grading, excavation and the placement of fill. Thus, policies on site alteration would be applicable to any area of a mineral aggregate operation that would be disturbed. Standards and procedures under the *Aggregate Resource Act (ARA)* provide for appropriate consideration of potential negative impacts of mineral aggregate operations on surface water and ground water features. The *ARA* also enables extractive activities to be managed to protect these resources. MNR does not agree that aggregate extraction has a "wide latitude or exemptions in following the rules of the PPS." The PPS states in Part III that it is intended to be read in its entirety and the relevant policies are to be applied to each situation.

MTO: The ministry has taken substantial steps to promote a balanced and integrated approach to transportation planning. All new transportation projects are subject to a full EA, considering all alternatives and the social, economic and environmental impacts. The ministry takes into account legislation, regulations, policies and guidelines in its planning, including consistency with the province's emerging growth plan for the Greater Golden Horseshoe and the Greenbelt Plan. The province supports transit through a number of funding programs and initiatives including: The Gas Tax Program, Ontario Transit Vehicle Program (OTVP), funding to the City of Toronto for renewal and expansion of the TTC, and funding for the expansion of GO Transit rail infrastructure. Funding agreements for the major infrastructure projects require municipalities to conform to provincial policies, including requirements to meet targets in municipal Official Plans (OPs) and Transportation Master Plans (TMPs) for transit ridership. There are requirements to implement policies in municipal OPs and TMPs for transit supportive land use and urban design, transit oriented development, concentration of development around existing nodes and around transit stations etc.

Lack of Comprehensive Planning Targets – MAH: MAH has been working with its partner ministries with land use planning interests, including MNR, to develop a range of draft indicators to be consulted on with stakeholders, municipalities, and other public bodies, to fulfill the government's commitment to develop indicators that measure the effectiveness of the PPS policies (Policy 4.10).

The *Greenbelt Act, 2005* and the Greenbelt Plan

MAH: Both the *Greenbelt Act, 2005* and the *ORMCA* require that planning decisions made by approval authorities (under the *Planning Act* and the *Condominium Act*, 1998) conform to the respective plans and both require that the local planning documents be brought into conformity with the plans. The *ORMCA* provides that the Minister is the approval authority for the municipal conformity documents and there is no appeal process. The *ORMCA* also contains offence provisions. Unlike the *ORMCA*, the *Greenbelt Act*, 2005 provides that municipalities will implement the Greenbelt Plan through their local planning documents under the current *Planning Act* regime in Ontario. Where there is a breach, the *Planning Act* contains its own offence provisions.

MTO: The *GBA* attempts to balance provincial interests and MTO is committed to carrying out its transportation planning within the requirements of the Greenbelt Plan. The strength of the GBP lies in balancing different needs, recognizing that growth needs to occur while ensuring protection for what is available. Additionally, MTO is completing an Environmental Standards Project to set out environmental standards and practices for the design and construction of provincial highways. The Project will address all environmental legislation, developing best environmental practices to be applied in the Greenbelt, the Oak Ridges Moraine, the Niagara Escarpment and other environmentally significant areas.

Key Features of the Greenbelt Plan – MAH: With limited exception, new uses are not permitted within Key Natural Heritage Features or Key Hydrological Features. The policies of the Niagara Escarpment Plan, Oak Ridges Moraine Conservation Plan and the Greenbelt Plan were developed at different points in time, under different contexts, and comparisons may be inaccurate. The NEP and ORMCP were specifically designed to protect environmentally sensitive features in their areas of application.

MNR: MNR notes that an application for the expansion of an existing mineral aggregate operation shall be required to demonstrate how connectivity between features will be maintained, how habitat could be immediately replaced and how the Water Resource System will be protected. This is an enhancement over the PPS. MNR also points out that the rehabilitation standards for mineral aggregate operations under the Greenbelt Plan set unprecedented requirements, particularly for protecting natural heritage.

MOE's Proposal to Control Industrial Air Emissions

MOE: MOE has moved ahead with new and updated air standards that will affect thousands of industrial facilities across Ontario. The government has passed and will be announcing this summer a new regulation to protect Ontario communities from the impacts of air pollution. Ontario Regulation 419/05, Air Pollution – Local Air Quality, revokes and replaces Regulation 346, RRO 1990and becomes effective on November 30, 2005.MOE consulted extensively with stakeholders on mechanisms to improve the implementation of scientifically-based air standards.

The new regulation allows industry time to plan for compliance or, if necessary, to apply for interim alternative standards to be set if new models or air standards cannot be achieved due to technical or economic barriers. This risk-based process will protect communities while allowing industry a smooth, transparent transition to new requirements.

Climate Change

MOE: Ontario is committed to Canada's stand on the Kyoto Protocol and sees climate change as an important international environmental issue. The federal government is responsible for determining greenhouse gas (GHG) emission reduction targets to meet Canada's Kyoto obligations. Ontario's key climate change initiative, the Coal Replacement Plan, could provide Ontario with up to half of the GHG reductions to meet a target of 6 percent below its 1990 emission levels and is the largest single step being undertaken to assist Canada in meeting its Kyoto targets. This initiative will replace all coal-fired generation with cleaner generation and conservation, including smart meters and demand-side management, resulting in annual GHG reductions of up to 30 megatonnes (MT).

Update on Land Application of Septage

MOE: The Government of Ontario is committed to phasing out the spreading of untreated septage on land. Going forward, as stipulated in the new Provincial Policy Statement (2005), municipalities will only be permitted to proceed with new rural development if the necessary septic treatment capacity is available. A lack of treatment capacity for septage remains the primary challenge to moving forward with a ban on raw septage spreading. Only about 20 per cent of sewage treatment plants are equipped to treat septage. The Ontario government promotes septage treatment. Municipalities now qualify for funding to construct septage treatment facilities under the Canada-Ontario Municipal Rural Infrastructure Fund, and the Government is promoting alternative treatment options. MOE is working with stakeholders on alternative technologies and treatment standards for these technologies. Clarity with respect to standards will promote private sector investment in alternative treatment for septage. Authorization for disposal of septage on frozen ground rarely happens and is only approved where there is an environmentally compelling reason.

Great Lakes Water Resources Agreements

MNR: MNR shares ECO concerns about protecting our Great Lakes Basin waters. On June 30, MNR announced the release of revised agreements for public review, including public and First Nations meetings across Ontario, and updated its *EBR* posting. Revised agreements prohibit diversions with a few strictly regulated exceptions. They reaffirm federal and IJC authority under the Boundary Waters Treaty, uphold principles of precaution and ecosystem integrity – recognize uncertainties of climate change, strengthen conservation, and exclude "resource improvement." Ontario and other jurisdictions will meet to discuss public comments and seek consensus on final agreements. Legislative changes to implement the agreement will be posted on the Registry.

Ontario Biodiversity Strategy

MNR: Protecting What Sustains Us: Ontario's Biodiversity Strategy, 2005 engages Ontarians in protecting biodiversity and providing for the sustainable use of biological assets. While led by government, the strategy was developed with many partners and individuals, recognizing that governments alone cannot do all that is necessary to conserve Ontario's variety of life for present and future generations. To assist Ontarians in working together, a Biodiversity Council will play an integral role in advancing the OBS and report to the public on progress annually.

Update on Highway Construction Practices

MTO: MTO prepared an Action Plan to respond to the audit recommendations to ensure similar situations do not recur. MTO will be providing updates to MOE to ensure landscaping, seed and cover is undertaken and that the environment is protected during highway construction through policies, guidelines, and contract documents.

MOE: MOE provided MTO comments on the audit and proposed action plan. MOE requested in June 2005 that MTO take action to address the findings of the audit by: reviewing environmental policies; developing an inventory of environmental deficiencies and action plans; and developing new contract procedures.

MNR: The Ministry of Transportation Class Environmental Assessment guides the planning and construction of highways. MNR participates in the production of the MTO Class EA and provides specific natural heritage information to MTO and its contractors during the planning or construction of individual highways. MTO approves and monitors projects.

Enforcement of the *Fisheries Act*

MNR: The federal *Fisheries Act* was originally prescribed under the *EBR* since Ministry of Natural Resources (MNR) and the Ministry of the Environment (MOE) utilized the legislation as required to enforce habitat protection provisions of the Act. Since then, the federal agencies have resumed lead enforcement responsibility of the habitat provisions of the *Fisheries Act*. The provincial resource management agencies (MNR, MOE) have confirmed an enforcement support role through the interim implementation of the multi-agency Fish Habitat Compliance Protocol. Individuals wishing to have issues investigated that fall under the *Fisheries Act* can petition the Federal Commissioner of the Environment and Sustainable Development (CESD). (see MNR comments under Keeping the *EBR* in Sync above for the CESD address.)

MOE: MOE launched a prosecution under section 36(3) of the *Fisheries Act* in March 2005 because a discharge incident may involve a potential violation of the *Fisheries Act, Ontario Water Resources Act*, and/or the *Environmental Protection Act*. MOE is discussing with Environment Canada whether there is a need to clarify the protocol for cases where MOE determines that the most appropriate charge is under section 36(3) of the *Fisheries Act*.

Ontario's Forest Fire Management Strategy

MNR: Ontario's Fire Strategy is a provincial scale framework document which provides broad direction for more detailed initiatives such as FireSmart Communities, FireSmart Forest Management and Fire Management in Provincial Parks and Protected Areas. These initiatives support the policy objectives of Ontario's fire management program and represent a significant shift from reactive fire suppression and response, to proactive risk-based fire management that will ensure long term public safety and ecosystem sustainability. A Prescribed Burn Discussion Paper is currently under review, the results of which will set direction for changes to the MNR prescribed burn policy, planning manuals, and associated programs. Initiatives promoting the increased use of fire to achieve resource management objectives, however, must be implemented slowly and cautiously to gain adequate public support while ensuring that public safety is not compromised. Ontario's Fire Strategy is the culmination of five years of work in which the public was provided with two opportunities to provide comment, and represents the first of many significant changes in fire management both nationally, and provincially.

Provincial Wood Supply Strategy

MNR: MNR is pleased that the ECO supports some of the strategies. However, some of the closing remarks about the Strategy in the Draft ECO Report may be misleading, and may not be substantiated by the supplemental or preceding text and facts. MNR does not agree that environmental safeguards have been weakened. Other requirements apply such as the Forest Management Planning Manual and forest management guides that provide direction to protect and conserve other forest values.

Aquaculture Policies and Procedures

MNR: MNR remains committed to providing appropriate public consultation under the *EBR* and the planning processes under the *EAA*. MNR continues in its view, in consultation with MOE, that the posting of information notices is the appropriate method of notice under the *EBR*, where the licence issuance would be a step towards implementing an undertaking/project approved by a decision under the *Environmental Assessment Act*. The information notices specify an opportunity for public comment. MNR carefully considers all public comments received in response to the information notices. MNR agrees with the importance of an integrated approach among the regulatory agencies responsible for regulating the aquaculture industry. MNR recognizes the importance of finalizing the interim policies and procedures currently used to regulate the cage aquaculture industry and is committed to continue working with sthe other regulatory agencies, stakeholders and Aboriginal communities to do this.

Conserving Ontario's Wolves: Steps Forward

MNR: Ontario is committed to the conservation of wolves, and has taken a number of initial steps towards this goal. Steps to date include protection of wolves in and around Algonquin Provincial Park, listing of the eastern wolf as special concern, announcement of a wolf conservation strategy and of a number of initial regulatory conservation measures. MNR plans to initiate winter aerial population surveys in 2005/06. The additional information that will be collected on wolf harvest and the proposed monitoring and research program will improve MNR's ability to assess the status of wolves in Ontario, and to determine the best regulatory framework for their management.

Aggregate Extraction on the North Shore of Lake Superior

MOE: The ministry has a draft EA compliance strategy which the Advisory Panel on Improvements to Ontario's Environmental Assessment Process has reviewed. The ministry is assessing the Panel's recommendations for compliance and monitoring to determine any next steps on this issue.

MNR: MNR is making progressive improvements in its delivery of the aggregate resources program. MNR is hiring three additional Aggregate Inspectors to improve compliance monitoring and enforcement, including requirements for rehabilitation. MNR is currently examining future designation of the province under the *ARA*, along with the issue of increasing licence fees. Existing strategic direction for the GLHC combined with local land use planning will guide the management of Crown lands on the Heritage Coast.

Encouraging Brownfields Redevelopment: Ontario Regulation 153/04

MOE: The government has been developing an effective brownfields redevelopment regime while ensuring that the public is informed and has the opportunity to participate in the consultation of the development of these initiatives. Further guidance documents and technical bulletins are under development and will help to define consultation requirements. On October 1, 2004 the government implemented legislation that removes a prime barrier to redevelopment brownfields – concern over broad environmental liability – and provided municipalities with a new financing tool for the clean up of brownfields. MOE has also committed to develop a certification program for professionals carrying out this work. With this regulatory regime in place, MOE can now assess its effectiveness, review recent progress in other jurisdictions and identify any existing regulatory gaps.

The Orillia MURF Brownfield Experience

MOE: The primary role of the ministry with respect to brownfield sites is to set clean-up standards and to see that these standards are met. In its preliminary review of the site, the Ministry identified the need for public participation. The ministry participated in a city news conference and attended a city public information session, and the City formed a Public Liaison Committee, which has held public meetings and posted information on its website. The City is proceeding with additional site characterization work in response to the ministry's review, which is part of the ongoing brownfield process for this site. The ministry will continue to work with the City of Orillia to ensure that any environmental issues at this property are addressed.

Pretreatment of Hazardous Waste

MOE: The LDR Regulation has been finalized. Standards will be phased-in over a 2 to 5 year period.

The *EBR* decision notice outlines the rationale for the LDR program and how the comments were considered. The rationale includes harmonizing the standards with the U.S. rules and pre-treatment to immobilize the hazardous constituents of the waste. Landfarms were included to harmonize with U.S. requirements and prevent contamination of air, groundwater and surface water. Information on hazardous waste generated in Ontario and imported into Ontario by sector was provided throughout the three stages of consultation. The July 2004 framework document was not intended to be a policy proposal notice. The regulation proposal notice was posted for a 90-day comment period in September 2004. Public comment was helpful in drafting the LDR regulation.

Wind Power Development on Crown Land

MNR: MNR acknowledges the ECO support of MNR's wind power development policy as providing a "standardized, orderly, predictable process to allow for wind power development on Crown land in Ontario." MNR strives to balance the protection of environmental and social values with the benefits associated with renewable energy development through application of the wind power policy, associated program policies and procedures, and the *Environmental Assessment Act* provisions. MNR will carefully consider the ECO recommendations on strengthening, clarifying and improving public access to the policy and supporting documents. In the next scheduled review of the policy, MNR will ensure that the policy clearly provides that wind power development is not permitted in protected areas. The recently completed Wind Resource Atlas for Ontario will be a key information source and analytical tool.

Environmental Protection Requirements for Highway Projects

MTO believes that EPRs are accurate interpretations of environmental law, made in partnership with and endorsed by all federal and provincial environmental regulatory agencies. EPRs only clarify existing environmental law and government policy as they are applied to MTO. They do not create new rules. EPR's are the first component of the Environmental Standards Project that will be used as a web-based internal resource to document all environmental legislation, regulations, policies and best practices that guide our provincial highways activities. Numerous DFO-endorsed EPRs clearly enunciate *Fisheries Act* requirements. MTO is working with DFO and MNR to update an existing Fisheries Protocol that sets out requirements and process to ensure MTO compliance with *Fisheries Act* requirements.

Environmental Impacts of Highway Construction Practices

MOE: The Ministry has a draft EA compliance strategy which the Advisory Panel on Improvements to Ontario's Environmental Assessment Process has reviewed. The ministry is assessing the Panel's recommendations for compliance and monitoring to determine any next steps on this issue.

MTO: The ministry acknowledges the issues identified in the audit and is developing an action plan to respond to the recommendations. We will be examining construction practices across the ministry to ensure that the ministry continues to be in compliance with environmental legislation. The ministry believes that its documents and guidelines are sound and it will continue to emphasize requirements with our service providers

MNR: MNR supports the implementation of the Ministry of Transportation's Class EA with comments and input on specific highway proposals. Approval and monitoring of projects are conducted by the Ministry of Transportation.

The Class EA for Provincial Transportation Facilities

MTO: MTO agrees that it is timely to review the Class EA process. MTO is awaiting the outcome of MOE's review of the panel recommendations on EA reform and will abide by MOE's recommendations. A review of the Class EA will be initiated at that time to update the Class EA document.

MOE: MTO's Class EA monitoring program indicates that any issues identified may be dealt with through the review of annual monitoring reports, an Addendum or at the 5-year review stage. MOE is currently reviewing the annual compliance reports, comments from field staff and the Class EA and will make recommendations to MTO for improving the Class EA this fiscal year. MOE reviews bump-up requests on a case-by-case basis and in addition to granting a bump-up request, the Minister has the ability to impose conditions to deal with issues. MOE is developing a "user's guide" to help interested stakeholders and members of the public better understand their rights under the Class EA process.

Water Taking and Transfer Regulation

MOE: MOE is developing a system to manage data to be reported by permit holders beginning in 2006. These data will be available to support PTTW decisions and other water management activities, such as water budgeting. MOE and MNR are developing water budget guidance for source protection planning to support initiatives such as policy development, transfers to partners (including conservation authorities) and the management of the compliance and enforcement (including auditing) program which the ministry takes very seriously. The new PTTW Manual clarifies how the regulation will be implemented. A new application guide clarifies applicants' responsibilities. Watershed designations will be reviewed when water budgets are prepared and finalized. MOE's water quantity management policy is based on fair sharing of water. During water shortages, recommendations regarding the relative importance of water uses are made by watershed-based water response teams.

Proposal for a Scrap Tire Diversion Program

MOE: The proposed Scrap Tire Diversion Program Plan was withdrawn by the Waste Diversion Ontario (WDO) in June 2005 because legal staff from the Ministry of the Attorney General Constitutional Law Branch and MOE Legal Services Branch identified a constitutional law issue in the proposed Program Plan. Thus, the proposal was in non-compliance with the *Waste Diversion Act, 2002*. WDO and Ontario Tire Stewardship (OTS) will be working with MOE to develop a revised waste diversion program for used tires.

Treatment of Landfill Leachate in STPs

MOE: The ministry has initiated several activities in response to the *EBR* request dealing with the co-treatment of landfill leachate in municipal sewage treatment plants:

1. Two draft policies, F-5-1: Minimum Treatment for Sewage Treatment Works Discharging to Surface Waters and F-5-8: Monitoring and Reporting Requirements for Sewage Treatment Works, are being finalized for stakeholder consultation. The recent Environment Canada regulations on chlorine and ammonia were considered in drafting the MOE proposed policies.
2. The sampling and testing initiative started in October 2004 and is expected to be completed by Spring 2006.
3. Development of Sewer Use Best Management Practices – The ministry is working with municipal representatives to prepare an inventory of existing Best Management Practices (BMPs) and to develop complete BMPs for selected industry sectors that are intended to reduce concentrations/loadings of harmful pollutants. It is expected that a final report will be completed in 2006.
4. The 2002 Canada-Ontario Agreement (COA) committed all parties to regularly produce progress reports on the agreement, as well as updates on the state of the Great Lakes. The State of the Lakes Ecosystem reports are updated and published every two years in cooperation with United States federal and state agencies. The first progress report was released at the IJC biennial meeting in Kingston on June 11, 2005. The report describes Canada's and Ontario's achievements in the first two years of COA and some of the work undertaken by government, industry, non-government organizations and the public to protect and conserve the Great Lakes basin. The entire report is available on-line at: http://www.on.ec.gc.ca/greatlakes/default.asp?lang=En&n=21EAE6CB-1.

Combined Sewer Overflows and Beach Closures

MOE: Policy F-5-5 was last updated in 1997 and is being considered in the overall review of policies related to the management of sewage treatment works. The overall review includes other jurisdictional experiences, their applicability to Ontario and the use of PPCPs to eliminate/reduce Combined sewer overflows. Applicants will be informed of the outcome of the PPCP reviews. Ontario is actively participating with CCME to develop a Canada-wide Strategy for Municipal Wastewater Effluent. The strategy will include, among other things, performance based standards, an environmental risk-based decision making model and management of Combined Sewer Overflows.

Aquaculture in Georgian Bay

MOE: The water quality monitoring trigger for phosphorous (10 ug/l) is based on the MOE's Water Management Guidelines, including the Provincial Water Quality Objectives (PWQO). The guidelines are protective of all waters across the province. CCME is currently testing its framework to see how site specific water quality criteria may be developed, using monitoring data from Ontario. Ontario will be reviewing the results of this project which could take 2–3 years to complete and may re-evaluate the interim PWQO of phosphorus as needed. MOE has announced its intention to the operators, local landowners and the broader community that it intends to work with them to discuss improved environmental performance in general, and specifically a more fulsome analysis of fish manure and uneaten feed released to the lake and related sediment issues based on available science. MOE is committed to working closely with the Ministry of Natural Resources regarding licensing issues, including water quality and sediment issues.

MNR: The Ontario Ministry of Natural Resources (MNR) and the Ontario Ministry of the Environment (MOE) have developed a working protocol which describes how MNR and MOE will co-ordinate their approach to regulating cage aquaculture operations in order to prevent impairment or adverse effect to the water and to protect the long-term health of aquatic ecosystems. MNR and MOE will continue to work together in reviewing cage aquaculture licence applications for potential water quality impacts and developing site specific water quality monitoring programs. MNR will continue to include where appropriate, water quality monitoring and reporting conditions provided by MOE as a condition of the cage aquaculture licence.

Managed Forest Tax Incentive Program

MNR: The Ministry of Natural Resources and the Ministry of Finance conducted an *EBR* review of the Managed Forest Tax Incentive Program to address concerns raised by the applicants. On December 10, 2004, a MFTIP Implementation Committee was established to oversee the implementation of the report's recommendations. In addition, the committee was directed by the ministers of Finance and Natural Resources to provide advice on recommendations on a new assessment approach for managed forests that was similar to the approach used for farms by March 31, 2005. Progress has been made and all parties have agreed to an extension of 2 months to the original March 31 deadline. The Ontario government wants to ensure that the property tax environment better allows for the MFTIP program objectives to be realized – recognizing the long-term nature of forest stewardship, encouraging tree planting on marginal lands and reducing land use conversion pressure. This work to develop a new assessment methodology is in support of *EBR* Review report recommendations that support the government's initiatives for the "greening" of southern Ontario.

Rehabilitation of Pits and Quarries in Ontario

MNR: Ontario is making progressive improvements to aggregate resource management as exemplified in recent government planning initiatives such as the Provincial Policy Statement, the Oak Ridges Moraine Conservation Plan and the Greenbelt Plan. For example, the Greenbelt Plan contains policies that minimize the allowable disturbed area for each aggregate operation within the Protected Countryside, and requires maximum rehabilitation on an on-going basis as well as rehabilitation to a state of greater or equal ecological value. These policies were developed in collaboration with stakeholders, including the aggregate industry.

Management Strategy for Double-crested Cormorants at Presqu'ile Provincial Park

MNR: MNR is developing a cormorant management framework to guide decision-making in the long term. MNR's current approach requires that the control of cormorant numbers only be considered in specific local areas if the birds are found to be having significant negative, ecological impacts on specific habitats or other species.

Species at Risk

MNR: Ontario has committed to a review of the *Endangered Species Act*. This commitment is contained in MNR's strategic direction, Our Sustainable Future and Ontario's Biodiversity Strategy (OBS, Action 18). The government has not announced the timing of this review. The review will include broad public consultation. Ontario is committed to meeting its provincial obligations under the National Accord related to the development of recovery strategies for endangered and threatened species (Action 19, OBS). There are currently 60 plus recovery teams working on recovery strategies and action plans for over 70 different Ontario species or ecosystems at risk. Fisheries and Oceans Canada has the legal mandate and lead for the management of aquatic species. Ontario works cooperatively with DFO to protect and recover aquatic species at risk occurring on provincial Crown or private lands. Jurisdictional roles and responsibilities for the management of species at risk in Ontario are being addressed in the Canada/Ontario Bilateral Agreement on Species at Risk Cooperation, currently under development.

Bad Drainage Planning: the McNabb Drain

OMAFRA: The 1997 work performed on the McNabb Award Drain that resulted in environmental and property damage was not authorized by the *Drainage Act*. The resulting civil law suit was transferred to the Court of the Drainage Referee who ordered the municipality to prepare a report under the provisions of the *Drainage Act* to address these problems. Without the intervention of this remedial *Drainage Act* project, the environmental and property damages could have continued significantly longer. OMAFRA will continue to work with MOE to develop clear guidance on the interpretation and application of Section 53 of the *OWRA* with respect to the *Drainage Act*.

Ministry Progress

Drive Clean Program – MOE: The emissions reductions reports show that Drive Clean is successful in reducing vehicle emissions that can have a serious impact on health and the environment. The ministry will assess the findings and recommendations of the independent consultant, retained to review the Drive Clean program, and invite public comment through the Environmental Registry before bringing forward program options for a decision by government.

Mercury in the Ecosystem – MOE: The ministry has expanded its collaborative efforts in 2005 to include the University of Waterloo (development of atmospheric models for transport and deposition of mercury) and the University of Toronto [temporal and spatial trends in contaminants (including mercury) in sport fish in the Great Lakes] while its partnerships with Queen's University and the University of Ottawa are ongoing. The ministry also initiated discussions with the US Environmental Protection Agency in 2005 on possible collaborative efforts regarding the development of an integrated mercury modeling framework. The ministry continues to participate in the METAALICUS study.

Provincial Water Quality Objective for Nitrate – MOE: MOE will review the Canadian Water Quality Guideline for nitrate and assess the implications to Ontario of adopting the number as a Provincial Water Quality Objective (PWQO). The MOE intends to post a proposal for a new PWQO for nitrate on the Environmental Registry by the end of 2005.

Regulation 903 – Wells Regulation – MOE: The ministry is intent on making the Regulations more workable, clear and enforceable. The ministry is planning a Regulation 903, RRO 1990 compliance activity program including inspection, outreach and education activities, to ensure compliance with the ministry's regulation and raise awareness of well owners. A series of technical bulletins are under development which will provide greater clarity for the regulated community in understanding the regulation. An industry Best Practices Manual is under development to provide practitioners with information on well construction and abandonment methods that are best practices and comply with the regulation. Revised well owner materials are under development for well drillers to distribute to private well owners about their responsibilities and how to safeguard their wells.

Prescribing the *Nutrient Management Act* – MOE: Our government's desire is to develop a source water protection and nutrient management framework that is workable, affordable and efficient while enhancing both agricultural management and the protection of sources of drinking water. In developing the *Nutrient Management Act* and regulation, proposals have been posted on the Environmental Registry. The ministries are committed to continue posting policy proposals on the Registry for public review. OMAFRA and MOE are working on options to prescribe the *Nutrient Management Act* under the *EBR*.

OMAFRA: Significant changes to the nutrient management regulation were proposed in late June 2005 and these posted on the Registry. These changes significantly alter the instruments under the Act. The two ministries will continue working together to prescribe the Act.

Protected Areas and Mining Disentanglement – MNR/MNDM: Resolutions have been proposed for the remaining 66 Ontario Living Legacy sites where mining claims overlapped recommended provincial parks or conservation reserves. The government's proposed solutions for the 66 sites were posted on the Environmental Registry on May 10, 2005 (EBR # XB05E4002). There will be opportunities for public input (including Environmental Registry postings) on the proposed solutions that involve changes in land use designations.

Water Management Plans under the *Lakes and Rivers Improvement Act* – MNR: MNR continues to give serious consideration to the proposal to classify Water Management Plans. The ministry has committed to a review of the Water Management Planning Guidelines for Waterpower following completion of the first cycle of planning, which will commence later in 2005. The question of classification will be discussed in detail as part of that review.

Invasive Species Strategy – OMAFRA: OMAFRA provided staff resources to assist MNR in development of Ontario Biodiversity Strategy (OBS). OMAFRA assists Canadian Food Inspection Agency in developing plans to deal with quarantine pests. OMAFRA will partner on the sub-strategies identified in the OBS.

Lake Trout – MNR: MNR did not post the lake trout dissolved oxygen criteria in the spring of 2005 but is planning to do so later this year.

Aggregate Industry Compliance – MNR: MNR is making progressive improvements to the aggregate resources program. MNR field audited 14 percent of licences in 2004. MNR is hiring three additional Aggregate Inspectors to further improve the delivery of the aggregate resources program with respect to compliance monitoring and enforcement, including requirements for rehabilitation.

Aggregate Resource Status – MNR: MNR has held preliminary discussions with TOARC's Board of Directors and the Board has agreed to consider a proposal by MNR (scope of proposal is still under consideration by MNR).

Ministry Cooperation

MNR: Minor revisions to the Ministry's *Public Lands Act* Free Use Policy were made in 2003 and 2004 to improve recreational enjoyment and environmental stewardship of Crown lands. The 2003 revisions to the 21 day Crown land camping provisions reflect the practical realities of enforcement and on the basis of stakeholders input to the earlier 2002 *EBR* based consultation. The 2004 revision addressed the need to provide Ministry control of organized off-road vehicle events-to minimize environmental damage and user conflict.

Human Pharmaceuticals in the Aquatic Environment: An Emerging Issue

MOE: MOE has partnered with universities, municipalities and Environment Canada (among others) to support research on pharmaceuticals and the environment. Under the MOE's Best in Science program, funding has been provided to Ontario universities to support research on the impact and/or fate of pharmaceuticals in Ontario drinking water supplies. Concentrations of these compounds in source water, drinking water and sewage effluent are being studies, as is the removal efficiency of various drinking water and sewage treatment processes. MOE is also continuing to develop analytical methods to test for the presence of an increased number of these substances in water and biosolids and has begun funding research to investigate the effects of pharmaceuticals on aquatic species. Retail pharmacies scattered throughout Ontario have voluntarily established pharmaceutical take-back programs. The ministry is in discussions with the Ontario College of Pharmacists to encourage pharmacists to manage their pharmaceutical wastes in an environmentally sound manner.

MOHLTC: The detection of pharmaceuticals in aquatic environments and drinking waters in recent studies in Ontario raises concern about their potential health risks to humans and the aquatic environment. MOHLTC will be pleased to provide support to the lead ministry, Ministry of the Environment, as they develop initiatives to address this important issue.

Building Conservation in Ontario

MBS: *Energy Self-Sufficiency* – ORC is installing an ultra-low emissions co-generation facility in Alymer, Ontario, which will reduce demand on the grid by about 6.8 million-kilowatt hours annually and has completed 10 additional feasibility studies for co-generation systems at sites throughout Ontario. In May 2005, ORC contracted with Enwave to use Deep Lake Water Cooling (DLWC) for cooling buildings in the Queen's Park precinct. Other projects (energy audits, building upgrades and retrofits, and utilities sub-metering) will keep us on track to meet the government's energy conservation goal of 10% electricity reduction by 2007. *LEED Program* – The construction of the Durham Consolidated Courthouse, the Archives building and the GTA Youth Centre reflect ORC's commitment to meeting high performance green building standards for its large infrastructure projects. ORC intends to achieve a LEED Silver rating for these projects, reducing energy consumption by an estimated 30%. *Leases and retrofit costs* – The government's policy of energy and water conservation is stated within the new standard lease form which acts as the basis for negotiations with third party landlords. Where possible, landlords are asked to adhere to specific conservation procedures. *Design Guidelines* – In July of 2003 ORC completed a technical review of its master building specifications and updated its energy standards to include more energy conservation elements.

ENG: This ministry will continue to support MBS in building a culture of conservation within government operations and in leading by example.

Invasive Alien Garden Plants and Ontario's Biodiversity

OMAFRA: The *Weed Control Act* is intended to protect agriculture and commercial horticulture only and is not applied in broader landscapes to enhance biodiversity e.g. to encourage Milkweed plant and monarch butterfly interactions. One goal of the OBS is to engage Ontarians and inform them about the risks to biodiversity. OMAFRA will work with partners such as Landscape Ontario, Master Gardeners, etc. to increase awareness about the importance of protecting biodiversity.

MNR: The message that some plants available through the garden trade can be invasive posing a significant risk to biodiversity is important – purple loosestrife is an example. Recognizing the risk of purple loosestrife and popular cultivars, provincial programs were implemented by MNR in cooperation with numerous government and non-government partners. Significant progress has been made throughout Ontario to limit the spread through mechanical and biological control initiatives, public awareness and participation. The strategic action identified in the Ontario Biodiversity Strategy (Section 5.5, action 17) to address invasive species by completing and implementing the Canadian Alien Invasive Species Action Plan, will help address concerns identified in the Environmental Commissioner's report. The unregulated import, propagation and sale of invasive alien garden plants was identified as an unaddressed gap during the development of the OBS. Federal, provincial and municipal governments have responsibility for different aspects of the issue. OMAFRA regulates weeds deemed noxious to commercial agriculture under the *Weed Control Act*, however the number of garden species listed is limited. MNR and OMAFRA, are working together to coordinate activities and improve risk assessment, early detection, rapid response, and management capability for invasive species including those sold in the garden trade.

Peat: An Unmanaged Natural Resource?

MNR: The Ministry of Natural Resources is committed to protecting Ontario's significant natural heritage features, such as wetlands, and their associated ecological functions and economic and social benefits, consistent with the MNR mission of ecological sustainability. MNR is very aware that peatlands such as Alfred Bog are exceedingly rare in southern Ontario. This rarity is due to most of the original wetlands present in the southern part of the province being drained, filled and lost to urban and other forms of development. Nonetheless, MNR recognizes the economic benefits of a peat harvesting industry in Ontario, when harvesting occurs in areas where significant wetlands are not negatively affected. MNR believes that the legislative and policy changes in the *Municipal Act, 2001, the Planning Act* and the PPS, 2005 are important improvements. MNR does acknowledge some the ECO's concerns about the current state of the legislative and policy framework that could control peat extraction activities. MNR will be reviewing options for managing peat harvesting.

Sustaining the Urban Forest

MNR: The provincial interest in urban forests is expressed through an enabling regulatory framework and information transfer. The regulatory framework enables municipalities to protect and conserve urban forests in support of locally generated policies. Improvements to this framework are ongoing such as the update to the Provincial Policy Statement, effective March 1, 2005 with additional recognition for significant natural features. MNR also supports the Tree Cutting Bylaw Committee to facilitate information flow amongst municipalities. Information transfer is also facilitated through sources such as the Forest Gene Conservation Association and the Ontario Tree Seed Plant that promote the importance of the genetic resources and genetic diversity conservation of the forests in south-central Ontario. In addition, capacity is provided at the municipal level through the Ontario Stewardship Program to assist groups and individuals in developing initiatives in support of local interests. Some Stewardship Councils may undertake activities in urban settings. Ontario recognizes the importance of urban forests and makes strategic investments in support of provincial and national interests. For example, MNR worked with the federal government in control measures and financial support for planting new trees in areas affected by the emerald ash borer and Asian long-horned beetle. Also, MNR has a number of initiatives underway to address to natural spaces conservation in southern Ontario.

MAH: *The Greenbelt Act, 2005* contains provisions for the Minister to require municipalities within the Protected Countryside area in the Greenbelt Plan to pass tree conservation by-laws, which may prohibit or regulate the destruction or injuring of trees.

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ECO Staff List: 2004/2005

Rebecca Bell	Policy & Decision Analyst
Robert Blaquiere	Systems, Webmaster & Case Manager
Darla Cameron	Policy & Decision Analyst
Maureen Carter-Whitney	Policy & Legal Analyst
Ann Cox	Resource Centre Librarian
Bev Dottin	Public Information Officer
Dennis Draper	Senior Policy Advisor
Beverley Edwards	Policy & Decision Analyst
Liz Farkas	Library Assistant
John Ferguson	Education Advisor
Greg Jenish	Policy & Decision Analyst
Peter Lapp	Executive Assistant
Lynda Lukasik	Policy & Decision Analyst
David McRobert	Senior Policy Advisor/In-House Counsel
Rachel Melzer	Policy & Decision Analyst
Cynthia Robinson	Office Administrator
Nadine Sawh	Case Management Assistant
Ellen Schwartzel	Senior Policy Advisor
Lisa Shultz	Policy & Decision Analyst
Chris Wilkinson	Policy & Decision Analyst
Virginia Wilson	Research Technician

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Environmental Commissioner of Ontario
1075 Bay Street, Suite 605
Toronto, Ontario, Canada M5S 2B1
Telephone: 416-325-3377
Fax: 416-325-3370
Toll Free: 1-800-701-6454
www.eco.on.ca

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